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CHARLES W. ELIOT

THE MAN AND HIS BELIEFS

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Approved by President Eliot for
posthumous publication

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CHARLES W. ELIOT

THE MAN AND HIS BELIEFS

EDITED WITH A
BIOGRAPHICAL STUDY
BY

WILLIAM ALLAN NEILSON
President of Smith College

IN TWO VOLUMES
VOLUME I

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BIOGRAPHICAL STUDY

BIOGRAPHICAL STUDY

For considerably more than half a century Charles William Eliot occupied a unique place in American public life. For forty years the head of a great University, he exercised on all classes of his countrymen an influence far beyond that of the usual academic dignitary. During the latter part of his presidency, and still more after he became emeritus, he was looked up to by hundreds of thousands of his fellow-citizens as a guide not merely in educational matters, but in all the great questions that have agitated the public mind, political, industrial, social, and moral. Other leaders of opinion have come and gone, and some for a time have been more conspicuous; but it is impossible to name a figure who so continuously dominated our intellectual horizon for so long a period.

Born on Beacon Street, Boston, on March 20, 1834, Mr. Eliot was in origin and breeding a Yankee of the Yankees. He was the only son of Samuel Atkins Eliot and Mary Lyman Eliot, and was thus descended from two distinguished colonial stocks. His father was a well-to-do importer, who lost his fortune in the panic of 1857. Charles was educated at the Boston Latin School and Harvard College, from which he graduated in 1853 at the age of nineteen. His chief interests in college were mathematics and chemistry, and at a time when no

laboratory opportunities were open to undergraduates, he was privileged to make a beginning in this method of study in the private laboratory of Professor Josiah P. Cooke. The year following his graduation, he was appointed tutor in mathematics. From 1858 to 1863 he was assistant professor of mathematics and chemistry in the Lawrence Scientific School of Harvard University, and on the expiration of his five-year term, having failed to obtain the Rumford professorship of chemistry which was then vacant, he was faced with one of the most difficult decisions of his life. The country was in the midst of the Civil War, and Governor Andrews offered him a commission as lieutenant-colonel of cavalry. He had five years before married Ellen Derby Peabody, daughter of the Rev. Ephraim Peabody, minister of King's Chapel, Boston. They now had two children, and had obligations to support their mothers, both of whom were widows. With great reluctance and distress Mr. Eliot decided that it was his duty to decline.

The next two years were spent in Europe in the study of chemistry and in that observation of educational methods and organization which was to be of such importance to him later. On his return he became professor of chemistry in the new Massachusetts Institute of Technology at a salary of $2,000. At the same time he declined the superintendence of the Merrimac Mills in Lowell at a salary of $5,000 and a house, and finally decided to make education his career.

In 1869, the Rev. Thomas Hill resigned the presidency of Harvard. Mr. Eliot had recently

published in the *Atlantic Monthly* two articles on "The New Education," which had roused lively discussion on account of his criticism of the rigidity of the older disciplines and his advocacy of the claims of science. The Corporation, with surprising insight and courage, chose him as Mr. Hill's successor, and after a struggle with the more conservative body of Overseers, whose consent was necessary, appointed him at the age of thirty-five President of Harvard. With this action began a new era in the history of American university education.

The institution of which Charles W. Eliot became the head in 1869 was the oldest of American colleges, having been founded in 1636. It had among its graduates a long line of distinguished men, but educationally it was still an unprogressive provincial college, with two or three inefficient professional schools attached to it. The new President knew it thoroughly, and both as student and teacher had realized its limitations. His years in Europe had made him aware how far Harvard, like other American colleges, fell short of the achievements and standards of the great foreign universities. His task was to end this disparity, and to create a type of educational institution adequate to the needs of the country and in vital relation to the advance of modern science and scholarship.

The new President's Inaugural Address, printed in the present collection, is an amazing document. To realize how amazing one must try to view it as it must have seemed to those who heard it delivered. With energy and precision, but without noise and fury, he laid down a set of principles and

proposed a series of changes which must have sounded, and indeed were, revolutionary. The timid were alarmed, academic vested interests seriously perturbed. He was under no illusions as to the difficulty of what he had undertaken, but this did not hinder him from projecting in full the outlines of his vision. How far forward that vision reached is indicated by the fact that practically all the main features which characterized the progress of American education for the next generation are to be found there.

He saw clearly what he wanted to do, and he began at once to argue that it should be done. Though strong-willed and self-assured, he sought to make his policies prevail not by the exercise of autocratic power, but by persuasion. Yet he never flattered, never played politics. He had faith that truth would prevail; and he stated the truth as he saw it, bluntly, persistently, and with all the logic he could command. One by one the reforms he advocated were adopted by sufficient majorities of the faculties and governing boards; and though the defeated might feel regret, they had none of the sense of grievance that would have come from a brutal forcing through of measures or a suppression of full and free discussion. Thus were established the elective system with the consequent development of specialization, the enrichment of the curriculum, especially on what is known as the modern side, the substitution of written for oral examinations and of lectures for recitations. In the administration of discipline a greater degree of liberty and responsibility was granted to the student, and entrance to

the college was guarded by higher standards of admission. Meanwhile Harvard grew from one thousand to five; twenty millions were added to the endowment; and a New England college became a cosmopolitan university.

No feature of Mr. Eliot's program attracted more attention or provoked bitterer hostility than the so-called "elective system." When he came into office, the undergraduate curriculum at Harvard had already been broadened to admit election of studies by the student to a considerable degree. It is a mistake to suppose that he invented the system. It was almost universal in Europe, and it began to be introduced at Harvard as early as 1825. The extension of it was with Mr. Eliot an implication of his belief in liberty in education. As he analyzed it, this liberty required giving to the students three things:

1. "Freedom in choice of studies.
2. Opportunity to win academic distinction in single subjects or special lines of study.
3. A discipline which distinctly imposes on each individual the responsibility of forming his own habits and guiding his own conduct."

In favor of the first, he argued that human nature is so varied that no prescribed course can possibly fit all boys, and that each boy's natural preferences and aptitudes are a better guide to studies than the judgment of his professors. Furthermore, he held that free choice produces a better attitude towards study than compulsion.

The second element afforded an honorable stimulus to effort, and led to the giving of advanced

courses, and ultimately to a raising of the general level of instruction.

The third involved a disbelief in the possibility of the formation of character in young men by a monastic régime. "Their protection," he wrote, "must be within them. They must find it in memory of home, in pure companionship, in hard work, in intellectual ambition, religious sentiment, and moral purpose. A sense of personal freedom and responsibility reinforces these protecting influences, while the existence of a supervising authority claiming large powers which it has no effective means of exercising, weakens them."

It will thus be seen that the leaving of the student free to choose his own studies was not a mere technical pedagogical device, but one of the applications of the broad principle of the beneficent effect of liberty which underlay his whole attitude towards society.

His reforms, however, did not all consist in the proclamation of a general principle, however sound. He had the interest and ability to study all kinds of detail in the working of the academic machine, and the ingenuity to think out improvements. Every part of the University began to feel his influence from the first.

The professional schools were no less in need of reform than the college. It is hard to-day to realize the state of medical education at the time that Mr. Eliot began his professional career. There were no requirements for admission to a medical school beyond the payment of a fee, with the result that many men entered who could scarcely read and write.

The whole period of attendance required was three winter terms of four months each, and the diploma was granted after a short oral examination in which it was sufficient to pass in five out of nine subjects—all of which were really indispensable. In the first year of his presidency, Mr. Eliot broke all precedents by attending the meetings of the medical faculty, and he proceeded at once to propose lengthening the terms from four to nine months, making the courses progressive instead of haphazard in the order in which they were taken, and substituting written for oral examinations. These changes were put into operation by the governing boards in spite of the resistance of the medical faculty. It took many years before the school was put upon a real graduate basis, insuring students with a good general education, and before the lengthened course and the clinical and laboratory training were required which are now taken for granted in any good medical school.

Legal education was little if any better than medical. The Harvard Law School had three professors, no Dean, and hardly anything that could be called a policy. It was Mr. Eliot who selected C. C. Langdell as the first Dean and supported him in the introduction of the famous "case system" of studying law. Here also the course was extended and a college degree required for admission. In no department of his endeavors was Mr. Eliot rewarded with more brilliant success, for when he retired the Harvard Law School was generally acknowledged as the most distinguished institution of its kind in the world.

A similar improvement in scholarly standing was achieved in the Divinity School, though this has not resulted, as in the other professional schools, in an increase in numbers. A Graduate School of Arts and Sciences was founded in 1890, of Applied Science in 1906, and of Business Administration shortly before Mr. Eliot's retirement. The first of these three has had a very large influence on university education throughout the country, having trained large numbers of college teachers and taught the method and given the stimulus for much original research. It has also reacted powerfully on Harvard College in the raising of the scholarly standard of the teaching staff and improving the general intellectual tone.

These are only the more notable instances of the development of the organizations which to-day constitute Harvard University and which are owing mainly to Mr. Eliot's ideals and his energy in realizing them. He had, of course, the coöperation of many colleagues. The Fellows, who constitute the Corporation, gave him faithful and sympathetic support, and as time went on he either converted the majorities in the various faculties or brought in new blood. The supreme test of the college administrator's success is in the choosing and retaining of a distinguished staff, and the greatest testimonial to President Eliot's success that could be presented would be the list of the brilliant scholars and able teachers whom he added to the Harvard faculties.

In most of these activities not only did Mr. Eliot lead within Harvard, but he made Harvard the leading institution of its kind in the country. From

the Atlantic to the Pacific it would be impossible to find an institution of higher learning which has not been profoundly affected by Mr. Eliot's innovations at Harvard. Occasionally, as by Johns Hopkins in 1876, the initiative in some field was taken by another institution; but it is only fair to say that during the forty years of his incumbency Harvard was the institution to which the others looked for progress in educational methods and ideas.

Nor was his influence confined to the higher institutions. The question of qualification for admission to college led him to a consideration of the curriculum of the secondary schools, and he played a leading part in the movement for uniform entrance requirements. In the schools as in college, he was always on the side of freedom, and his ideas penetrated even to the primary grades.

The freedom which President Eliot believed in for the students he accorded also to the professor. Discussions in faculty were untrammeled, and no man's career was ever injured because he opposed the President in matters of policy and opinion. It would be difficult to pick two men more opposed in temperament and personality than Mr. Eliot and the late Professor Barrett Wendell, and their differences were often enough displayed in the councils of the college. Yet it is Wendell who thus describes his method: "He simply reasons—and more convincingly than anyone else I know. . . . In his conduct to individuals, I have never known him to depart from the finest standards of justice and honor." Not only in faculty meeting and classroom were professors given their freedom, but in

outside activities as well. Mr. Eliot saw no reason why a place on a college faculty should limit a man's rights as a citizen; and this freedom he claimed for himself also.

Throughout his tenure of the Presidency of Harvard, Mr. Eliot took a lively interest in political and social affairs, and often gave public expression to his views; but it was after his resignation in 1909 that he became to such a remarkable degree the giver of counsel to the nation at large. It is safe to say that his position of leadership in public opinion in all matters of general interest was as unique during the last seventeen years of his life as was previously his position of leadership in education.

The titles of the articles and speeches contained in the present volume indicate to some extent the range and variety of his more permanent interests; but he uttered himself on many subjects which could not be represented here. Each presidential election as it approached led him to a careful scrutiny of issues and candidates, and he usually communicated to the public the results of his reflections. Latterly he was regarded as a Democrat, his leaning to that side being due in part at least to his disbelief in protection and to his feeling that on the whole the Democrats had shown more "sympathy with ordinary humanity, with the less comfortable and happy classes, and with the dejected or discontented portion of the American population." He was a strong supporter of Woodrow Wilson in his Mexican and European War policies, and a believer in the League of Nations. Yet he was never a rigid partisan. He voted three times for Cleveland, but he could

not support Bryan, and he was for Roosevelt in 1904 and for Taft in 1908; but again for Davis against Coolidge in 1924.

In the last year of his Presidency he undertook the editing of the Harvard Classics. Attention had been aroused by a remark of his in a speech that a shelf five feet long would contain the books which if a man read diligently for but fifteen minutes a day, would make him an educated man. Through Mr. Norman Hapgood, Mr. Robert Collier proposed to him that he should compile a list of the contents of such a shelf, with a view to having the books published as a set. Mr. Eliot took the matter into consideration, impressed by the possibilities of popular education that the idea opened up. When it was suggested that the series should be called "The Harvard Classics," he laid the matter before the Corporation of the University and obtained their official approval. An assistant editor was chosen from the Harvard faculty to aid in the selection of titles, in the preparation of texts, and in the furnishing of introductions and notes, and late in the spring of 1909 the undertaking was launched.

The extent of the interest aroused was remarkable, and the newspapers from coast to coast were filled with comment and criticism. Unfortunately much of this was beside the point. When the volumes began to appear, the complete list was not made out; in fact it was not until publication was near completion that such a list existed. In their impatience, the newspapers concocted lists from rumors and speculation, and the greater part of the

criticism directed against the selections was based on totally inaccurate data.

It was Dr. Eliot's purpose to include as fully as possible all phases and periods of culture as far as those could be represented in documents of permanent value and general intelligibility. He also sought to do this by means of complete wholes, thus distinguishing the work from the various collections of extracts from famous writers. He allowed himself in a few cases to give a place to books that were in a sense personal favorites—such, for example, as John Woolman's Journal, a choice which aroused much comment and curiosity, and gave the diary of the saintly Quaker a new lease of life. The series as a whole, however, shows little eccentricity of taste or judgment, and contains a vast amount of the most valuable and permanent literature of the world. The editor's expectations of a wide educational influence have been more than fulfilled. The whole conception, and the carrying out of it in the face of criticism and misunderstanding, furnish an admirable example of his courage and persistence when a worth-while aim was to be achieved.

In 1911, Mr. Eliot, accompanied by his wife and a granddaughter, undertook a trip around the world on behalf of the Carnegie Endowment for International Peace, "to procure material for a Report to the Trustees, through the Division of Intercourse and Education, as to what activities may wisely and helpfully be planned in and for the Asiatic countries, that will advance the cause of peace and international good-will." While in Ceylon he was seized

with appendicitis and had to undergo an operation. He made a good recovery and proceeded with his tour, which resulted in an elaborate and interesting report, part of which was reissued in his "Road toward Peace." He had since 1907 been paying more and more attention to this subject, and the outbreak of the war in 1914 inevitably quickened this interest. It continued to occupy his mind to the end of his life.

Dr. Eliot, though not professing to be a literary man, has been a voluminous writer. Education has naturally been his most persistent theme, and the essays and addresses contained in the present edition are typical of the subjects on which he has spoken oftenest. They have been chosen so as to convey as far as possible all his most characteristic educational ideas. It will be seen that they deal with American education from the common school up to scientific research, that they discuss questions such as the fundamental nature and aims of education, that they relate education to society at large, and that they handle specific problems like college football and the higher education of women. On all of these aspects he sheds the light of a steady, clear-burning intellectual flame.

His attitude towards football is characteristic. He was an enthusiast for bodily health, and for regular and rational exercise as a means to maintain health. He himself rowed on a college crew when he was a tutor; he rode horseback, bicycled, sailed a boat, swam, and walked. He believed in college athletics as a means to an end; he did not believe in colleges as a means to intercollegiate contests.

The abuses of competitive athletics he could not avoid seeing, and he did not regard football as an ideal sport, knowing the temptations it afforded to brutality and dirty play. So, although nothing seemed to evoke college loyalty so much as a football game with Yale, and though many of his friends and hundreds of loyal and generous alumni were devoted to the game, he did not hesitate to say what he thought about it.

About the higher education of women he made up his mind slowly. About few educational problems was he, at the outset of his career, more cautious and hesitant. At the first Commencement of Smith College in 1879, he disappointed the eager first graduates and their friends by his frank treatment of them and their college as a somewhat precarious experiment, the value of which it would need time to prove. Thirty-eight years later, at the inauguration of the present President of Smith, he made frank and honorable amends. Recalling his former hesitation, he stated his belief that it was no longer true that the higher education of women was on trial, but that the women's colleges had proved that their students were capable of as severe an intellectual discipline as the undergraduates of the men's colleges. Meantime, he had shown himself a warm friend of Radcliffe College under the wing of Harvard.

In the field of government, his most lasting enthusiasm was for civil service reform, and for many years he was one of the stanchest supporters of the movement, taking part in the work of the association for its extension, and speaking and writing for

it effectively. He was much interested also in experiments for the improvement of municipal politics, and supported the system of city government by commission.

His views on the relations of capital and labor brought him again and again into the field of active controversy. He believed in the principle of collective bargaining, and was humane and sympathetic towards the working man. But there were features of trade union politics of which he strongly disapproved. Believing in the dignity of work and in the enduring satisfaction of a good job well done, he had no sympathy with restriction of output. His strong individualism and his belief in liberty made him oppose the closed shop, and he gave labor a violent shock when he called the "scab" an American hero. Labor leaders, nevertheless, respected and even liked him, and admired the courage that led him to tell them what he thought their faults to their faces and on their own platforms.

Perhaps the most interesting section of these volumes is that containing his papers on the Conduct of Life. The three books among his numerous publications which he thought might have a more permanent value are all in this division: "The Happy Life," "John Gilley," and his "Life of Charles Eliot." Through the work of this son, who died at the age of thirty-seven, he became deeply interested in the work of the landscape architect and in the allied field of the conservation of natural resources and natural beauty. Few passages in his writings are finer than that in which with fine discrimination and subdued emotion he delineated the

character of the young man who had been cut off in his prime.

These papers on the Conduct of Life are the answer to those who think of Dr. Eliot as a man concerned only with intellectual and material values. They display from many angles his profound concern with human character and his conviction that it is in spiritual things that the permanent satisfactions of life are to be found. Always he is feeling for the elements in the life of the individual, of the institution, or of the nation which are worthy to last, and which will last because they are worthy. He came of a stock that did not talk glibly of intimate and personal things; but when he overcame this innate reserve he showed plainly where his heart lay.

On the occasion of his retirement one who knew him well thus summed up his character in a discriminating article in *The Outlook*.

"It is difficult for one who admires him for what he has done, and loves him for what he is, to write with proper reserve concerning his character what may fall under his personal eye. Yet he who has so patiently borne criticism may be, we hope, trusted to endure appreciation with patience. And to understand his work one must know the man. Strong emotions under yet stronger control; broad interests seen in their just proportions; faith in the dignity and worth of man; a spirit that measures all institutions, whether political, industrial, educational, or religious, by their effect on individual character; a profound faith in spiritual unity and none in enforced uniformity; aristocracy of birth, breeding, and culture, coupled with a democrat's faith in his

fellowmen and a democrat's fellowship with them whatever their culture or want of it; tenacity in the pursuit of his ends, unwearied patience in waiting on time for their accomplishment; disinterestedness in service and absolute devotion to his self-selected form of service; comprehension of great principles with mastery of details; a profoundly religious temperament that is eloquent in deeds but reticent in words; a Puritan's absolute candor and a Puritan's reserve; an open mind to truth wherever discovered and a clear discerning judgment of it; a command of English that sometimes pierces like a rapier, coupled with a stately and courtly presence—all have combined to make Dr. Eliot a great educator and a great citizen, a maker of men and a Nation's counselor."

As a public speaker, Mr. Eliot was in the highest sense distinguished. He stood erect before his audience, his hands clasped in front of him, and rarely used gesture. His voice was rich and vibrant, controlled and even. His words came to him readily, but he spoke without hurry and without show. He was willing to repeat himself as often as was necessary to get his message to the largest possible public. He never hesitated to state a fact or an idea because it might be thought obvious or commonplace. And, indeed, in his utterance it never appeared so to those who heard, though it might sometimes do so to those who only read the report. His English was singularly pure and noble, without apparent artifice and without preciosity, and he could be homely without losing dignity. When he felt deeply he conveyed his emotion to his audience with

no sense of seeking an effect, and his indignation was appalling.

"Time will make plain," says a writer in *The World's Work,* "that, in organizing the university as a vessel in which all that is best in the past shall be stored and thence transmitted, an organism thoroughly American in spirit and adaptability, President Eliot's achievement has had no recent parallel. There is in America no educator, be he college president or professor, school principal, teacher or humble assistant, whose work has not been directly influenced by him; every college student, every child at school feels his shaping hand; every textbook has been revised by the standards he has compelled. Measuring greatness by the breadth, healthfulness, and permanence of achievement, we find that no other American of his generation has approached him. By the benefits he has conferred, Charles William Eliot ranks with Emerson and Lincoln as a benefactor of his time and country. Those three are the supreme products of American Democracy in the nineteenth century, its vindicators, its exemplars, happy presagers of its coming prime."

Dr. Eliot was not a great scholar in the technical sense. In his own subject he was a competent chemist and wrote a good textbook; but he abandoned specialization too early to reach distinction in research. He was very widely informed and was a great reader; but he learned as much from men as from books. He was an expert in the employment of experts; and he consulted members of his faculty when in search of special information as another man might consult a cyclopedia. His judgment of

men was keen, and he formed it by watching them and letting them reveal themselves by their words and deeds. Cautious up to a certain point, he was bold when his mind was made up; and he constantly astonished one by the freedom and almost indiscretion of his criticisms.

Grave and stately in appearance, Dr. Eliot was not in reality an austere man. Even a slight intimacy revealed much geniality, kindness, and humor; but his inability to trifle with the truth, his scorn of insincerity and affectation, and his courageous frankness of utterance sometimes frightened the timid. His spoken and written style is a faithful expression of his character. It is a style without applied ornament, without excess of any kind. At first sight it appears bald in its severe simplicity and its courageous obviousness, but at its best it is monumental, balanced, logical, the utterance of a just and valiant man.

Dr. Eliot's first wife died just before he became President of Harvard. In 1877, he married Grace Mellen Hopkinson of Cambridge, who died in 1924. For seventeen years after he became President Emeritus he continued to live in Cambridge, surrounded by his grandchildren and a host of friends, and exerting his unique influence on public opinion by his utterances on the weightier topics of the time. Then in the summer of 1926 he returned for the last time to his beloved Mt. Desert, where, at Northeast Harbor, he died on August twenty-second.

WILLIAM ALLAN NEILSON

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To A. W. Shaw Company, for "Successful Profit Sharing," published in *System.*

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EDUCATION

INAUGURAL ADDRESS OF DR. ELIOT

Delivered on October 19, 1869, when Charles William Eliot became President of Harvard College

THE endless controversies whether language, philosophy, mathematics, or science supplies the best mental training, whether general education should be chiefly literary or chiefly scientific, have no practical lesson for us to-day. This University recognizes no real antagonism between literature and science, and consents to no such narrow alternatives as mathematics or classics, science or metaphysics. We would have them all, and at their best. To observe keenly, to reason soundly, and to imagine vividly are operations as essential as that of clear and forcible expression; and to develop one of these faculties, it is not necessary to repress and dwarf the others. A university is not closely concerned with the applications of knowledge, until its general education branches into professional. Poetry and philosophy and science do indeed conspire to promote the material welfare of mankind; but science no more than poetry finds its best warrant in its utility. Truth and right are above utility in all realms of thought and action.

It were a bitter mockery to suggest that any sub-

ject whatever should be taught less than it now is in American colleges. The only conceivable aim of a college government in our day is to broaden, deepen, and invigorate American teaching in all branches of learning. It will be generations before the best of American institutions of education will get growth enough to bear pruning. The descendants of the Pilgrim Fathers are still very thankful for the parched corn of learning.

Recent discussions have added pitifully little to the world's stock of wisdom about the staple of education. Who blows to-day such a ringing trumpet-call to the study of language as Luther blew? Hardly a significant word has been added in two centuries to Milton's description of the unprofitable way to study languages. Would any young American learn how to profit by travel, that foolish beginning but excellent sequel to education, he can find no apter advice than Bacon's. The practice of England and America is literally centuries behind the precept of the best thinkers upon education. A striking illustration may be found in the prevailing neglect of the systematic study of the English language. How lamentably true to-day are these words of Locke: "If any one among us have a facility or purity more than ordinary in his mother-tongue, it is owing to chance, or his genius, or anything rather than to his education or any care of his teacher."

THE best result of the discussion which has raged so long about the relative educational value of the main branches of learning is the conviction that

there is room for them all in a sound scheme, provided that right methods of teaching be employed. It is not because of the limitation of their faculties that boys of eighteen come to college, having mastered nothing but a few score pages of Latin and Greek, and the bare elements of mathematics. Not nature, but an unintelligent system of instruction from the primary school through the college, is responsible for the fact that many college graduates have so inadequate a conception of what is meant by scientific observation, reasoning, and proof. It is possible for the young to get actual experience of all the principal methods of thought. There is a method of thought in language, and a method in mathematics, and another of natural and physical science, and another of faith. With wise direction, even a child would drink at all these springs. The actual problem to be solved is not what to teach, but how to teach. The revolutions accomplished in other fields of labor have a lesson for teachers. New England could not cut her hay with scythes, or the West her wheat with sickles. When millions are to be fed where formerly there were but scores, the single fish-line must be replaced by seines and trawls, the human shoulders by steam-elevators, and the wooden-axled ox-cart on a corduroy road by the smooth-running freight-train. In education, there is a great hungry multitude to be fed. The great well at Orvieto, up whose spiral paths files of donkeys painfully brought the sweet water in kegs, was an admirable construction in its day; but now we tap Fresh Pond in our chambers. The Orvieto well might remind some persons of educa-

tional methods not yet extinct. With good methods, we may confidently hope to give young men of twenty to twenty-five an accurate general knowledge of all the main subjects of human interest, besides a minute and thorough knowledge of the one subject which each may select as his principal occupation in life. To think this impossible is to despair of mankind; for unless a general acquaintance with many branches of knowledge, good so far as it goes, be attainable by great numbers of men, there can be no such thing as an intelligent public opinion; and in the modern world the intelligence of public opinion is the one indispensable condition of social progress.

What has been said of needed reformation in methods of teaching the subjects which have already been nominally admitted to the American curriculum applies not only to the university, but to the preparatory schools of every grade down to the primary. The American college is obliged to supplement the American school. Whatever elementary instruction the schools fail to give, the college must supply. The improvement of the schools has of late years permitted the college to advance the grade of its teaching, and adapt the methods of its later years to men instead of boys. This improvement of the college reacts upon the schools to their advantage; and this action and reaction will be continuous. A university is not built in the air, but on social and literary foundations which preceding generations have bequeathed. If the whole structure needs rebuilding, it must be rebuilt from the foundation. Hence, sudden recon-

struction is impossible in our high places of education. Such inducements as the College can offer for enriching and enlarging the course of study pursued in preparatory schools, the Faculty has recently decided to give. The requirements in Latin and Greek grammar are to be set at a thorough knowledge of forms and general principles; the lists of classical authors accepted as equivalents for the regular standards are to be enlarged; an acquaintance with physical geography is to be required; the study of elementary mechanics is to be recommended, and prizes are to be offered for reading aloud, and for the critical analysis of passages from English authors. At the same time the University will take to heart the counsel which it gives to others.

In every department of learning the University would search out by trial and reflection the best methods of instruction. The University believes in the thorough study of language. It contends for all languages—Oriental, Greek, Latin, Romance, German, and especially for the mother-tongue; seeing in them all one institution, one history, one means of discipline, one department of learning. In teaching languages, it is for this American generation to invent, or to accept from abroad, better tools than the old; to devise, or to transplant from Europe, prompter and more comprehensive methods than the prevailing; and to command more intelligent labor, in order to gather rapidly and surely the best fruit of that culture and have time for other harvests.

The University recognizes the natural and physical sciences as indispensable branches of education, and has long acted upon this opinion; but it would have science taught in a rational way, objects and instruments in hand—not from books merely, not through the memory chiefly, but by the seeing eye and the informing fingers. Some of the scientific scoffers at gerund grinding and nonsense verses might well look at home; the prevailing methods of teaching science, the world over, are, on the whole, less intelligent than the methods of teaching language. The University would have scientific studies in school and college and professional school develop and discipline those powers of the mind by which science has been created and is daily nourished—the powers of observation, the inductive faculty, the sober imagination, the sincere and proportionate judgment. A student in the elements gets no such training by studying even a good text-book, though he really master it, nor yet by sitting at the feet of the most admirable lecturer.

If there be any subject which seems fixed and settled in its educational aspects, it is the mathematics; yet there is no department of the University which has been, during the last fifteen years, in such a state of vigorous experiment upon methods and appliances of teaching as the mathematical department. It would be well if the primary schools had as much faith in the possibility of improving their way of teaching multiplication.

The important place which history, and mental, moral, and political philosophy, should hold in any

broad scheme of education is recognized of all; but none know so well how crude are the prevailing methods of teaching these subjects as those who teach them best. They cannot be taught from books alone, but must be vivified and illustrated by teachers of active, comprehensive, and judicial mind. To learn by rote a list of dates is not to study history. Mr. Emerson says that history is biography. In a deep sense this is true. Certainly, the best way to impart the facts of history to the young is through the quick interest they take in the lives of the men and women who fill great historical scenes or epitomize epochs. From the centers so established, their interest may be spread over great areas. For the young especially, it is better to enter with intense sympathy into the great moments of history, than to stretch a thin attention through its weary centuries.

Philosophical subjects should never be taught with authority. They are not established sciences; they are full of disputed matters, open questions, and bottomless speculations. It is not the function of the teacher to settle philosophical and political controversies for the pupil, or even to recommend to him any one set of opinions as better than another. Exposition, not imposition, of opinions is the professor's part. The student should be made acquainted with all sides of these controversies, with the salient points of each system; he should be shown what is still in force of institutions or philosophies mainly outgrown, and what is new in those now in vogue. The very word "education" is a standing protest against dogmatic teaching.

The notion that education consists in the authoritative inculcation of what the teacher deems true may be logical and appropriate in a convent, or a seminary for priests, but it is intolerable in universities and public schools, from primary to professional. The worthy fruit of academic culture is an open mind, trained to careful thinking, instructed in the methods of philosophic investigation, acquainted in a general way with the accumulated thought of past generations, and penetrated with humility. It is thus that the university in our day serves Christ and the church.

The increasing weight, range, and thoroughness of the examination for admission to college may strike some observers with dismay. The increase of real requisitions is hardly perceptible from year to year; but on looking back ten or twenty years, the changes are marked, and all in one direction. The dignity and importance of this examination have been steadily rising, and this rise measures the improvement of the preparatory schools. When the gradual improvement of American schools has lifted them to a level with the German gymnasia, we may expect to see the American college bearing a nearer resemblance to the German faculties of philosophy than it now does. The actual admission examination may best be compared with the first examination of the University of France. This examination, which comes at the end of a French boy's school life, is for the degree of Bachelor of Arts or of Sciences. The degree is given to young men who come fresh from school

and have never been under university teachers; a large part of the recipients never enter the university. The young men who come to our examination for admission to college are older than the average of French Bachelors of Arts. The examination tests not only the capacity of the candidates, but also the quality of their school instruction; it is a great event in their lives, though not, as in France, marked by any degree. The examination is conducted by college professors and tutors who have never had any relations whatever with those examined. It would be a great gain if all subsequent college examinations could be as impartially conducted by competent examiners brought from without the college and paid for their services. When the teacher examines his class, there is no effective examination of the teacher. If the examinations for the scientific, theological, medical, and dental degrees were conducted by independent boards of examiners, appointed by professional bodies of dignity and influence, the significance of these degrees would be greatly enhanced. The same might be said of the degree of Bachelor of Laws, were it not that this degree is, at present, earned by attendance alone, and not by attendance and examination. The American practice of allowing the teaching body to examine for degrees has been partly dictated by the scarcity of men outside the faculties who are at once thoroughly acquainted with the subjects of examination, and sufficiently versed in teaching to know what may fairly be expected of both students and instructors. This difficulty could now be overcome. The chief reason,

however, for the existence of this practice is that the faculties were the only bodies that could confer degrees intelligently, when degrees were obtained by passing through a prescribed course of study without serious checks, and completing a certain term of residence without disgrace. The change in the manner of earning the University degrees ought, by right, to have brought into being an examining body distinct from the teaching body. So far as the College proper is concerned, the Board of Overseers have, during the past year, taken a step which tends in this direction.

The rigorous examination for admission has one good effect throughout the college course: it prevents a waste of instruction upon incompetent persons. A school with a low standard for admission and a high standard of graduation, like West Point, is obliged to dismiss a large proportion of its students by the way. Hence much individual distress, and a great waste of resources, both public and private. But, on the other hand, it must not be supposed that every student who enters Harvard College necessarily graduates. Strict annual examinations are to be passed. More than a fourth of those who enter the College fail to take their degree.

Only a few years ago, all students who graduated at this College passed through one uniform curriculum. Every man studied the same subjects in the same proportions, without regard to his natural bent or preference. The individual student had no choice of either subjects or teachers. This

system is still the prevailing system among American colleges, and finds vigorous defenders. It has the merit of simplicity. So had the school methods of our grandfathers—one primer, one catechism, one rod for all children. On the whole, a single common course of studies, tolerably well selected to meet the average needs, seems to most Americans a very proper and natural thing, even for grown men.

As a people, we do not apply to mental activities the principle of division of labor; and we have but a halting faith in special training for high professional employments. The vulgar conceit that a Yankee can turn his hand to anything we insensibly carry into high places, where it is preposterous and criminal. We are accustomed to seeing men leap from farm or shop to court-room or pulpit, and we half believe that common men can safely use the seven-league boots of genius. What amount of knowledge and experience do we habitually demand of our lawgivers? What special training do we ordinarily think necessary for our diplomatists?—although in great emergencies the nation has known where to turn. Only after years of the bitterest experience did we come to believe the professional training of a soldier to be of value in war. This lack of faith in the prophecy of a natural bent, and in the value of a discipline concentrated upon a single object, amounts to a national danger.

In education, the individual traits of different minds have not been sufficiently attended to. Through all the period of boyhood the school studies should be representative; all the main fields

of knowledge should be entered upon. But the young man of nineteen or twenty ought to know what he likes best and is most fit for. If his previous training has been sufficiently wide, he will know by that time whether he is most apt at language or philosophy or natural science or mathematics. If he feels no loves, he will at least have his hates. At that age the teacher may wisely abandon the schooldame's practice of giving a copy of nothing but zeros to the child who alleges that he cannot make that figure. When the revelation of his own peculiar taste and capacity comes to a young man, let him reverently give it welcome, thank God, and take courage. Thereafter he knows his way to happy, enthusiastic work, and, God willing, to usefulness and success. The civilization of a people may be inferred from the variety of its tools. There are thousands of years between the stone hatchet and the machine-shop. As tools multiply, each is more ingeniously adapted to its own exclusive purpose. So with the men that make the State. For the individual, concentration, and the highest development of his own peculiar faculty, is the only prudence. But for the State, it is variety, not uniformity, of intellectual product, which is needful.

These principles are the justification of the system of elective studies which has been gradually developed in this College during the past forty years. At present the Freshman year is the only one in which there is a fixed course prescribed for all. In the other three years, more than half the time allotted to study is filled with subjects chosen

by each student from lists which comprise six studies in the Sophomore year, nine in the Junior year, and eleven in the Senior year. The range of elective studies is large, though there are some striking deficiencies. The liberty of choice of subject is wide, but yet has very rigid limits. There is a certain framework which must be filled; and about half the material of the filling is prescribed. The choice offered to the student does not lie between liberal studies and professional or utilitarian studies. All the studies which are open to him are liberal and disciplinary, not narrow or special. Under this system the College does not demand, it is true, one invariable set of studies of every candidate for the first degree in Arts; but its requisitions for this degree are nevertheless high and inflexible, being nothing less than four years devoted to liberal culture.

It has been alleged that the elective system must weaken the bond which unites members of the same class. This is true; but in view of another much more efficient cause of the diminution of class intimacy, the point is not very significant. The increased size of the college classes inevitably works a great change in this respect. One hundred and fifty young men cannot be so intimate with each other as fifty used to be. This increase is progressive. Taken in connection with the rising average age of the students, it would compel the adoption of methods of instruction different from the old, if there were no better motive for such change. The elective system fosters scholarship, because it gives free play to natural preferences and inborn apti-

tudes, makes possible enthusiasm for a chosen work, relieves the professor and the ardent disciple of the presence of a body of students who are compelled to an unwelcome task, and enlarges instruction by substituting many and various lessons given to small, lively classes, for a few lessons many times repeated to different sections of a numerous class. The College therefore proposes to persevere in its efforts to establish, improve, and extend the elective system. Its administrative difficulties, which seem formidable at first, vanish before a brief experience.

THERE has been much discussion about the comparative merits of lectures and recitations. Both are useful—lectures, for inspiration, guidance, and the comprehensive methodizing which only one who has a view of the whole field can rightly contrive; recitations, for securing and testifying a thorough mastery on the part of the pupil of the treatise or author in hand, for conversational comment and amplification, for emulation and competition. Recitations alone readily degenerate into dusty repetitions, and lectures alone are too often a useless expenditure of force. The lecturer pumps laboriously into sieves. The water may be wholesome, but it runs through. A mind must work to grow. Just as far, however, as the student can be relied on to master and appreciate his author without the aid of frequent questioning and repetitions, so far is it possible to dispense with recitations. Accordingly, in the later College years there is a decided tendency to diminish the number of reci-

tations, the faithfulness of the student being tested by periodical examinations. This tendency is in a right direction, if prudently controlled.

The discussion about lectures and recitations has brought out some strong opinions about text-books and their use. Impatience with text-books and manuals is very natural in both teachers and taught. These books are indeed, for the most part, very imperfect, and stand in constant need of correction by the well-informed teacher. Stereotyping, in its present undeveloped condition, is in part to blame for their most exasperating defects. To make the metal plates keep pace with the progress of learning is costly. The manifest deficiencies of text-books must not, however, drive us into a too sweeping condemnation of their use. It is a rare teacher who is superior to all manuals in his subject. Scientific manuals are, as a rule, much worse than those upon language, literature, or philosophy; yet the main improvement in medical education in this country during the last twenty years has been the addition of systematic recitations from text-books to the lectures which were formerly the principal means of theoretical instruction. The training of a medical student, inadequate as it is, offers the best example we have of the methods and fruits of an education mainly scientific. The transformation which the average student of a good medical school undergoes in three years is strong testimony to the efficiency of the training he receives.

THERE are certain common misapprehensions about colleges in general, and this College in particular,

to which I wish to devote a few moments' attention. And, first, in spite of the familiar picture of the moral dangers which environ the student, there is no place so safe as a good college during the critical passage from boyhood to manhood. The security of the college commonwealth is largely due to its exuberant activity. Its public opinion, though easily led astray, is still high in the main. Its scholarly tastes and habits, its eager friendships and quick hatreds, its keen debates, its frank discussions of character and of deep political and religious questions, all are safeguards against sloth, vulgarity, and depravity. Its society and, not less, its solitudes are full of teaching. Shams, conceit, and fictitious distinctions get no mercy. There is nothing but ridicule for bombast and sentimentality. Repression of genuine sentiment and emotion is indeed, in this College, carried too far. Reserve is more respectable than any undiscerning communicativeness; but neither Yankee shamefacedness nor English stolidity is admirable. This point especially touches you, young men, who are still undergraduates. When you feel a true admiration for a teacher, a glow of enthusiasm for work, a thrill of pleasure at some excellent saying, give it expression. Do not be ashamed of these emotions. Cherish the natural sentiment of personal devotion to the teacher who calls out your better powers. It is a great delight to serve an intellectual master. We Americans are but too apt to lose this happiness. German and French students get it. If ever in after years you come to smile at the youthful

reverence you paid, believe me, it will be with tears in your eyes.

Many excellent persons see great offense in any system of college rank; but why should we expect more of young men than we do of their elders? How many men and women perform their daily tasks from the highest motives alone—for the glory of God and the relief of man's estate? Most people work for bare bread, a few for cake. The college rank-list reinforces higher motives. In the campaign for character, no auxiliaries are to be refused. Next to despising the enemy, it is dangerous to reject allies. To devise a suitable method of estimating the fidelity and attainments of college students is, however, a problem which has long been under discussion, and has not yet received a satisfactory solution. The worst of rank as a stimulus is the self-reference it implies in the aspirants. The less a young man thinks about the cultivation of his mind, about his own mental progress,—about himself, in short,—the better.

The petty discipline of colleges attracts altogether too much attention from both friends and foes. It is to be remembered that the rules concerning decorum, however necessary to maintain the high standard of manners and conduct which characterizes this College, are nevertheless justly described as petty. What is technically called a quiet term cannot be accepted as the acme of university success. This success is not to be measured by the frequency or rarity of college punishments. The criteria of success or failure in a high place of learning are not the boyish escapades of an insignificant

minority, nor the exceptional cases of ruinous vice. Each year must be judged by the added opportunities of instruction, by the prevailing enthusiasm in learning, and by the gathered wealth of culture and character. The best way to put boyishness to shame is to foster scholarship and manliness. The manners of a community cannot be improved by main force any more than its morals. The Statutes of the University need some amendment and reduction in the chapters on crimes and misdemeanors. But let us render to our fathers the justice we shall need from our sons. What is too minute or precise for our use was doubtless wise and proper in its day. It was to inculcate a reverent bearing and due consideration for things sacred that the regulations prescribed a black dress on Sunday. Black is not the only decorous wear in these days; but we must not seem, in ceasing from this particular mode of good manners, to think less of the gentle breeding of which only the outward signs, and not the substance, have been changed.

Harvard College has always attracted and still attracts students in all conditions of life. From the city trader or professional man, who may be careless how much his son spends at Cambridge, to the farmer or mechanic, who finds it a hard sacrifice to give his boy his time early enough to enable him to prepare for college, all sorts and conditions of men have wished and still wish to send their sons hither. There are always scores of young men in this University who earn or borrow every dollar they spend here. Every year many young men enter

this College without any resources whatever. If they prove themselves men of capacity and character, they never go away for lack of money. More than twenty thousand dollars a year is now devoted to aiding students of narrow means to compass their education, besides all the remitted fees and the numerous private benefactions. These latter are unfailing. Taken in connection with the proceeds of the funds applicable to the aid of poor students, they enable the Corporation to say that no good student need ever stay away from Cambridge or leave college simply because he is poor. There is one uniform condition, however, on which help is given: the recipient must be of promising ability and the best character. The community does not owe superior education to all children, but only to the élite—to those who, having the capacity, prove by hard work that they have also the necessary perseverance and endurance. The process of preparing to enter college under the difficulties which poverty entails is just such a test of worthiness as is needed. At this moment there is no college in the country more eligible for a poor student than Harvard on the mere ground of economy. The scholarship funds are mainly the fruit of the last fifteen years. The future will take care of itself; for it is to be expected that the men who in this generation have had the benefit of these funds, and who succeed in after life, will pay manyfold to their successors in need the debt which they owe, not to the College, but to benefactors whom they cannot even thank, save in heaven. No wonder that scholarships are founded. What greater priv-

ilege than this of giving young men of promise the coveted means of intellectual growth and freedom? The angels of heaven might envy mortals so fine a luxury. The happiness which the winning of a scholarship gives is not the recipient's alone: it flashes back to the home whence he came, and gladdens anxious hearts there. The good which it does is not his alone, but descends, multiplying at every step, through generations. Thanks to the beneficent mysteries of hereditary transmission, no capital earns such interest as personal culture. The poorest and the richest students are equally welcome here, provided that with their poverty or their wealth they bring capacity, ambition, and purity. The poverty of scholars is of inestimable worth in this money-getting nation. It maintains the true standards of virtue and honor. The poor friars, not the bishops, saved the church. The poor scholars and preachers of duty defend the modern community against its own material prosperity. Luxury and learning are ill bedfellows. Nevertheless, this College owes much of its distinctive character to those who, bringing hither from refined homes good breeding, gentle tastes, and a manly delicacy, add to them openness and activity of mind, intellectual interests, and a sense of public duty. It is as high a privilege for a rich man's son as for a poor man's to resort to these academic halls, and so to take his proper place among cultivated and intellectual men. To lose altogether the presence of those who in early life have enjoyed the domestic and social advantages of wealth would be as great a blow to the College as to lose the sons of the poor.

The interests of the College and the country are identical in this regard. The country suffers when the rich are ignorant and unrefined. Inherited wealth is an unmitigated curse when divorced from culture. Harvard College is sometimes reproached with being aristocratic. If by aristocracy be meant a stupid and pretentious caste, founded on wealth, and birth, and an affectation of European manners, no charge could be more preposterous: the College is intensely American in affectation, and intensely democratic in temper. But there is an aristocracy to which the sons of Harvard have belonged, and, let us hope, will ever aspire to belong—the aristocracy which excels in manly sports, carries off the honors and prizes of the learned professions, and bears itself with distinction in all fields of intellectual labor and combat; the aristocracy which in peace stands firmest for the public honor and renown, and in war rides first into the murderous thickets.

The attitude of the University in the prevailing discussions touching the education and fit employments of women demands brief explanation. America is the natural arena for these debates; for here the female sex has a better past and a better present than elsewhere. Americans, as a rule, hate disabilities of all sorts, whether religious, political, or social. Equality between the sexes, without privilege or oppression on either side, is the happy custom of American homes. While this great discussion is going on, it is the duty of the University to maintain a cautious and expectant policy. The Corporation will not receive women

as students into the College proper, nor into any school whose discipline requires residence near the school. The difficulties involved in a common residence of hundreds of young men and women of immature character and marriageable age are very grave. The necessary police regulations are exceedingly burdensome. The Corporation are not influenced to this decision, however, by any crude notions about the innate capacities of women. The world knows next to nothing about the natural mental capacities of the female sex. Only after generations of civil freedom and social equality will it be possible to obtain the data necessary for an adequate discussion of woman's natural tendencies, tastes, and capabilities. Again, the Corporation do not find it necessary to entertain a confident opinion upon the fitness or unfitness of women for professional pursuits. It is not the business of the University to decide this mooted point. In this country the University does not undertake to protect the community against incompetent lawyers, ministers, or doctors. The community must protect itself by refusing to employ such. Practical, not theoretical, considerations determine the policy of the University. Upon a matter concerning which prejudices are deep, and opinion inflammable, and experience scanty, only one course is prudent or justifiable when such great interests are at stake—that of cautious and well-considered experiment. The practical problem is to devise a safe, promising, and instructive experiment. Such an experiment the Corporation have meant to try in opening the newly established University Courses of Instruction to

competent women. In these courses the University offers to young women who have been to good schools as many years as they wish of liberal culture in studies which have no direct professional value, to be sure, but which enrich and enlarge both intellect and character. The University hopes thus to contribute to the intellectual emancipation of women. It hopes to prepare some women better than they would otherwise have been prepared for the profession of teaching, the one learned profession to which women have already acquired a clear title. It hopes that the proffer of this higher instruction will have some reflex influence upon schools for girls—to discourage superficiality, and to promote substantial education.

THE governing bodies of the University are the Faculties, the Board of Overseers, and the Corporation. The University as a place of study and instruction is, at any moment, what the Faculties make it. The professors, lecturers, and tutors of the University are the living sources of learning and enthusiasm. They personally represent the possibilities of instruction. They are united in several distinct bodies, the academic and professional Faculties, each of which practically determines its own processes and rules. The discussion of methods of instruction is the principal business of these bodies. As a fact, progress comes mainly from the Faculties. This has been conspicuously the case with the Academic and Medical Faculties during the last fifteen or twenty years. The undergraduates used to have a notion that the time of the Academic Fac-

ulty was mainly devoted to petty discipline. Nothing could be further from the truth. The Academic Faculty is the most active, vigilant, and devoted body connected with the University. It indeed is constantly obliged to discuss minute details, which might appear trivial to an inexperienced observer. But, in education, technical details tell. Whether German be studied by the Juniors once a week as an extra study, or twice a week as an elective, seems, perhaps, an unimportant matter; but, twenty years hence, it makes all the difference between a generation of Alumni who know German and a generation who do not. The Faculty renews its youth, through the frequent appointments of tutors and assistant professors, better and oftener than any other organization within the University. Two kinds of men make good teachers—young men and men who never grow old. The incessant discussions of the Academic Faculty have borne much fruit: witness the transformation of the University since the beginning of President Walker's administration. And it never tires. New men take up the old debates, and one year's progress is not less than another's. The divisions within the Faculty are never between the old and the young officers. There are always old radicals and young conservatives.

The Medical Faculty affords another illustration of the same principle—that for real university progress we must look principally to the teaching bodies. The Medical School to-day is almost three times as strong as it was fifteen years ago. Its teaching power is greatly increased, and its methods

have been much improved. This gain is the work of the Faculty of the School.

If then the Faculties be so important, it is a vital question how the quality of these bodies can be maintained and improved. It is very hard to find competent professors for the University. Very few Americans of eminent ability are attracted to this profession. The pay has been too low, and there has been no gradual rise out of drudgery, such as may reasonably be expected in other learned callings. The law of supply and demand, or the commercial principle that the quality as well as the price of goods is best regulated by the natural contest between producers and consumers, never has worked well in the province of high education. And in spite of the high standing of some of its advocates, it is well-nigh certain that the so-called law never can work well in such a field. The reason is that the demand for instructors of the highest class on the part of parents and trustees is an ignorant demand, and the supply of highly educated teachers is so limited that the consumer has not sufficient opportunities of informing himself concerning the real qualities of the article he seeks. Originally a bad judge, he remains a bad judge, because the supply is not sufficiently abundant and various to instruct him. Moreover, a need is not necessarily a demand. Everybody knows that the supposed law affords a very imperfect protection against short weight, adulteration, and sham, even in the case of those commodities which are most abundant in the market and most familiar to buyers. The most intelligent community is defenseless

enough in buying clothes and groceries. When it comes to hiring learning and inspiration and personal weight, the law of supply and demand breaks down altogether. A university cannot be managed like a railroad or a cottonmill.

There are, however, two practicable improvements in the position of college professors which will be of very good effect. Their regular stipend must and will be increased, and the repetitions which now harass them must be diminished in number. It is a strong point of the elective system that, by reducing the size of classes or divisions, and increasing the variety of subjects, it makes the professor's labors more agreeable.

Experience teaches that the strongest and most devoted professors will contribute something to the patrimony of knowledge; or if they invent little themselves, they will do something toward defending, interpreting, or diffusing the contributions of others. Nevertheless, the prime business of American professors in this generation must be regular and assiduous class teaching. With the exception of the endowments of the Observatory, the University does not hold a single fund primarily intended to secure to men of learning the leisure and means to prosecute original researches.

The organization and functions of the Board of Overseers deserve the serious attention of all men who are interested in the American method of providing the community with high education through the agency of private corporations. Since 1866 the Overseers have been elected by the Alumni. Five

men are chosen each year to serve six years. The body has, therefore, a large and very intelligent constituency, and is rapidly renewed. The ingenious method of nominating to the electors twice as many candidates as there are places to be filled in any year is worthy of careful study as a device of possible application in politics. The real function of the Board of Overseers is to stimulate and watch the President and Fellows. Without the Overseers, the President and Fellows would be a board of private trustees, self-perpetuated and self-controlled. Provided as it is with two governing boards, the University enjoys that principal safeguard of all American governments—the natural antagonism between two bodies of different constitution, powers, and privileges. While having with the Corporation a common interest of the deepest kind in the welfare of the University and the advancement of learning, the Overseers should always hold toward the Corporation an attitude of suspicious vigilance. They ought always to be pushing and prying. It would be hard to overstate the importance of the public supervision exercised by the Board of Overseers. Experience proves that our main hope for the permanence and ever-widening usefulness of the University must rest upon this double-headed organization. The English practice of setting up a single body of private trustees to carry on a school or charity according to the personal instructions of some founder or founders has certainly proved a lamentably bad one; and when we count by generations, the institutions thus established have proved short-lived. The same

causes which have brought about the decline of English endowed schools would threaten the life of this University were it not for the existence of the Board of Overseers. These schools were generally managed by close corporations, self-elected, self-controlled, without motive for activity, and destitute of external stimulus and aid. Such bodies are too irresponsible for human nature. At the time of life at which men generally come to such places of trust, rest is sweet, and the easiest way is apt to seem the best way; and the responsibility of inaction, though really heavier, seems lighter than the responsibility of action. These corporations were often hampered by founders' wills and statutory provisions which could not be executed, and yet stood in the way of organic improvements. There was no systematic provision for thorough inspections and public reports thereupon. We cannot flatter ourselves that under like circumstances we should always be secure against like dangers. Provoked by crying abuses, some of the best friends of education in England have gone the length of maintaining that all these school endowments ought to be destroyed, and the future creation of such trusts rendered impossible. French law practically prohibits the creation of such trusts by private persons.

Incident to the Overseers' power of inspecting the University and publicly reporting upon its condition, is the important function of suggesting and urging improvements. The inertia of a massive University is formidable. A good past is positively dangerous, if it make us content with the present,

and so unprepared for the future. The present constitution of our Board of Overseers has already stimulated the Alumni of several other New England colleges to demand a similar control over the property-holding board of trustees which has heretofore been the single source of all authority.

We come now to the heart of the University—the Corporation. This board holds the funds, makes appointments, fixes salaries, and has, by right, the initiative in all changes of the organic law of the University. Such an executive board must be small to be efficient. It must always contain men of sound judgment in finance; and literature and the learned professions should be adequately represented in it. The Corporation should also be but slowly renewed; for it is of utmost consequence to the University that the Government should have a steady aim, and a prevailing spirit which is independent of individuals and transmissible from generation to generation. And what should this spirit be? First, it should be a catholic spirit. A university must be indigenous; it must be rich; but, above all, it must be free. The winnowing breeze of freedom must blow through all its chambers. It takes a hurricane to blow wheat away. An atmosphere of intellectual freedom is the native air of literature and science. This University aspires to serve the nation by training men to intellectual honesty and independence of mind. The Corporation demands of all its teachers that they be grave, reverent, and high-minded; but it leaves them, like their pupils, free. A university is built, not by a sect, but by a nation.

Secondly the actuating spirit of the Corporation must be a spirit of fidelity—fidelity to the many and various trusts reposed in them by the hundreds of persons who, out of their penury or their abundance, have given money to the President and Fellows of Harvard College in the beautiful hope of doing some perpetual good upon this earth. The Corporation has constantly done its utmost to make this hope a living fact. One hundred and ninety-nine years ago, William Pennoyer gave the rents of certain estates in the county of Norfolk, England that "two fellows and two scholars forever should be educated, brought up, and maintained" in this College. The income from this bequest has never failed; and to-day one of the four Pennoyer scholarships is held by a lineal descendant of William Pennoyer's brother Robert. So a lineal descendant of Governor Danforth takes this year the income of the property which Danforth bequeathed to the College in 1699. The Corporation have been as faithful in the greater things as in the less. They have been greatly blessed in one respect: in the whole life of the Corporation, seven generations of men, nothing has ever been lost by malfeasance of officers or servants. A reputation for scrupulous fidelity to all trusts is the most precious possession of the Corporation. That safe, the College might lose everything else and yet survive; that lost beyond repair, and the days of the College would be numbered. Testators look first to the trustworthiness and permanence of the body which is to dispense their benefactions. The Corporation thankfully receive all gifts which may advance learning; but

they believe that the interests of the University may be most effectually promoted by not restricting too narrowly the use to which a gift may be applied. Whenever the giver desires it, the Corporation will agree to keep any fund separately invested under the name of the giver, and to apply the whole proceeds of such investment to any object the giver may designate. By such special investment, however, the insurance which results from the absorption of a specific gift in the general funds is lost. A fund invested by itself may be impaired or lost by a single error of judgment in investing. The chance of such loss is small in any one generation, but appreciable in centuries. Such general designations as salaries, books, dormitories, public buildings, scholarships graduate or undergraduate, scientific collections, and expenses of experimental laboratories, are of permanent significance and effect; while experience proves that too specific and minute directions concerning the application of funds must often fail of fulfilment, simply in consequence of the changing needs and habits of successive generations.

Again, the Corporation should always be filled with the spirit of enterprise. An institution like this College is getting decrepit when it sits down contentedly on its mortgages. On its invested funds the Corporation should be always seeking how safely to make a quarter of a per cent. more. A quarter of one per cent. means a new professorship. It should be always pushing after more professorships, better professors, more land and buildings, and better apparatus. It should be eager,

sleepless, and untiring, never wasting a moment in counting laurels won, ever prompt to welcome and apply the liberality of the community, and liking no prospect so well as that of difficulties to be overcome and labors to be done in the cause of learning and public virtue.

You recognize, gentlemen, the picture which I have drawn in thus delineating the true spirit of the Corporation of this College. I have described the noble quintessence of the New England character—that character which has made us a free and enlightened people; that character which, please God, shall yet do a great work in the world for the lifting up of humanity.

Apart from the responsibility which rests upon the Corporation, its actual labors are far heavier than the community imagines. The business of the University has greatly increased in volume and complexity during the past twenty years, and the drafts made upon the time and thought of every member of the Corporation are heavy indeed. The high honors of the function are in these days most generously earned.

The President of the University is primarily an executive officer; but, being a member of both governing boards and of all the faculties, he has also the influence in their debates to which his more or less perfect intimacy with the University and greater or less personal weight may happen to entitle him. An administrative officer who undertakes to do everything himself will do but little, and that little ill. The President's first duty is that of supervision.

He should know what each officer's and servant's work is, and how it is done. But the days are past in which the President could be called on to decide everything from the purchase of a door-mat to the appointment of a professor. The principle of divided and subordinate responsibilities, which rules in government bureaus, in manufactories, and all great companies, which makes a modern army a possibility, must be applied in the University. The President should be able to discern the practical essence of complicated and long-drawn discussions. He must often pick out that promising part of theory which ought to be tested by experiment, and must decide how many of things desirable are also attainable, and what one of many projects is ripest for execution. He must watch and look before—watch, to seize opportunities to get money, to secure eminent teachers and scholars, and to influence public opinion toward the advancement of learning; and look before, to anticipate the due effect on the University of the fluctuations of public opinion on educational problems; of the progress of the institutions which feed the University; of the changing condition of the professions which the University supplies; of the rise of new professions; of the gradual alteration of social and religious habits in the community. The University must accommodate itself promptly to significant changes in the character of the people for whom it exists. The institutions of higher education in any nation are always a faithful mirror in which are sharply reflected the national history and character. In this mobile nation the action and reaction between the

University and society at large are more sensitive and rapid than in stiffer communities. The President, therefore, must not need to see a house built before he can comprehend the plan of it. He can profit by a wide intercourse with all sorts of men, and by every real discussion on education, legislation, and sociology.

The most important function of the President is that of advising the Corporation concerning appointments, particularly about appointments of young men who have not had time and opportunity to approve themselves to the public. It is in discharging this duty that the President holds the future of the University in his hands. He cannot do it well unless he have insight, unless he be able to recognize, at times beneath some crusts, the real gentleman and the natural teacher. This is the one oppressive responsibility of the President: all other cares are light beside it. To see every day the evil fruit of a bad appointment must be the cruelest of official torments. Fortunately, the good effect of a judicious appointment is also inestimable; and here, as everywhere, good is more penetrating and diffusive than evil.

It is imperative that the statutes which define the President's duties should be recast, and the customs of the College be somewhat modified, in order that lesser duties may not crowd out the greater. But, however important the functions of the President, it must not be forgotten that he is emphatically a constitutional executive. It is his character and his judgment which are of importance, not his opinions. He is the executive officer of deliberative bodies, in

which decisions are reached after discussion by a majority vote. Those decisions bind him. He cannot force his own opinions upon anybody. A university is the last place in the world for a dictator. Learning is always republican. It has idols, but not masters.

WHAT can the community do for the University? It can love, honor, and cherish it. Love it and honor it. The University is upheld by this public affection and respect. In the loyalty of her children she finds strength and courage. The Corporation, the Overseers, and the several faculties need to feel that the leaders of public opinion, and especially the sons of the College, are at their back, always ready to give them a generous and intelligent support. Therefore we welcome the Chief Magistrate of the Commonwealth, the Senators, Judges, and other dignitaries of the State, who by their presence at this ancient ceremonial bear witness to the pride which Massachusetts feels in her eldest university. Therefore we rejoice in the presence of this throng of the Alumni, testifying their devotion to the College which, through all changes, is still their home. Cherish it. This University, though rich among American colleges, is very poor in comparison with the great universities of Europe. The wants of the American community have far outgrown the capacity of the University to supply them. We must try to satisfy the cravings of the select few as well as the needs of the average many. We cannot afford to neglect the Fine Arts. We need groves and meadows as well as barracks; and soon there

will be no chance to get them in this expanding city. But, above all, we need professorships, books, and apparatus, that teaching and scholarship may abound.

And what will the University do for the community? First, it will make a rich return of learning, poetry, and piety. Secondly, it will foster the sense of public duty—that great virtue which makes republics possible. The founding of Harvard College was an heroic act of public spirit. For more than a century the breath of life was kept in it by the public spirit of the Province and of its private benefactors. In the last fifty years the public spirit of the friends of the College has quadrupled its endowments. And how have the young men nurtured here in successive generations repaid the founders for their pious care? Have they honored freedom and loved their country? For answer we appeal to the records of the national service; to the lists of the Senate, the cabinet, and the diplomatic service, and to the rolls of the army and navy. Honored men, here present, illustrate before the world the public quality of the graduates of this College. Theirs is no mercenary service. Other fields of labor attract them more and would reward them better; but they are filled with the noble ambition to deserve well of the republic. There have been doubts, in times yet recent, whether culture were not selfish; whether men of refined tastes and manners could really love Liberty, and be ready to endure hardness for her sake; whether, in short, gentlemen would in this century prove as loyal to

noble ideas as in other times they had been to kings. In yonder old playground, fit spot whereon to commemorate the manliness which there was nurtured, shall soon rise a noble monument which for generations will give convincing answer to such shallow doubts; for over its gates will be written: "In memory of the sons of Harvard who died for their country." The future of the University will not be unworthy of its past.

1869

WHAT IS A LIBERAL EDUCATION?

THE general growth of knowledge and the rise of new literatures, arts, and sciences during the past two hundred and fifty years have made it necessary to define anew liberal education, and, hence to enlarge the signification of the degree of Bachelor of Arts, which is the customary evidence of a liberal education. Already the meaning of this ancient degree has quietly undergone many serious modifications; it ought now to be fundamentally and openly changed.

The course of study which terminates in the degree of Bachelor of Arts ordinarily covers seven to ten years, of which four are spent in college and three to six at school; and this long course is, for my present purpose, to be considered as a whole. I wish to demonstrate, first, that the number of school and college studies admissible with equal weight or rank for this highly valued degree needs to be much enlarged; secondly, that among admissible subjects a considerable range of choice should be allowed from an earlier age than that at which choice is now generally permitted; and, thirdly, that

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the existing order of studies should be changed in important respects. The phrase "studies admissible with equal weight or rank" requires some explanation. I use it to describe subjects which are taught with equal care and completeness, are supported by the same prescriptions, and win for their respective adherents equal admission to academic competitions, distinctions, and rewards, and equal access to the traditional goal of a liberal education, the degree of Bachelor of Arts. Coördinate studies must be on an equal footing in all respects: of two studies, if one is required and the other elective, if one is taught elaborately and fully and the other only in its elements, if honors and scholarships may be obtained through one and not through the other, if one may be counted toward the valuable degree of Bachelor of Arts and the other only toward the very inferior degree of Bachelor of Science or Bachelor of Philosophy, the two studies are not coordinate—they have not the same academic weight or rank.

The three principal propositions just enunciated lead to consequences which at first sight are repulsive to most men educated in the existing system. For example, it would follow from them that children might not receive the training which their fathers received; that young men educated simultaneously in the same institutions might not have knowledge of the same subjects, share precisely the same intellectual pleasures, or cultivate the same tastes; and that the degree of Bachelor of Arts would cease to indicate—what it has indicated for nearly three hundred years—that every re-

cipient had devoted the larger part of his years of training to Latin, Greek, and mathematics. Proposals which lead to such results inevitably offend all minds naturally conservative. The common belief of most educated men in the indispensableness of the subjects in which they were themselves instructed reinforces the general conservatism of mankind in regard to methods of education; and this useful conservatism is securely intrenched behind the general fact that anything which one generation is to impart to the next through educational institutions must, as a rule, be apprehended with tolerable precision by a considerable number of individuals of the elder generation. Hence a new subject can force its way only very gradually into the circle of the arts called liberal. For instance, it was more than a hundred years after the widespread revival of Greek in Europe before that language was established at Paris and Oxford as a regular constituent in the academic curriculum; and physics and chemistry are not yet fully admitted to that curriculum, although Robert Boyle published his "New Experiments touching the Spring of the Air" in 1660, Lavoisier analyzed water in 1783, Galvani discovered animal electricity in 1790, and John Dalton published his "New System of Chemical Philosophy" in 1808. Indeed, so stout and insurmountable seem the barriers against progress in education, as we look forward, that we are rather startled on looking back to see how short a time what is has been.

It is the received opinion that mathematics is an indispensable and universal constituent of educa-

tion, possessing the venerable sanction of immemorial use; but when we examine closely the matters now taught as mathematics in this country, we find that they are all recent inventions, of a character so distinct from the Greek geometry and conic sections which with arithmetic represented mathematics down to the seventeenth century, that they do not furnish the same mental training at all. As Whewell pointed out forty years ago, modern mathematics—algebra, analytic geometry, the differential and integral calculi, analytical mechanics, and quaternions—has almost put out of sight the ancient form of mathematical science. Leibnitz published his "Rules of the Differential Calculus" in 1684, Newton his "Method of Fluxions" in 1711, Euler his "Institutiones Calculi Integralis" in 1768-70; but Lagrange, Laplace, Monge, Legendre, Gauss, and Hamilton, the chief promulgators of what we now call mathematical science, all lived into or in this century. The name of this well-established constituent of the course of study required for the baccalaureate is old, but the thing itself is new. A brief citation from the conclusion of Whewell's prolix discussion of the educational value of mathematics, in his treatise entitled "Of a Liberal Education," will explain and fortify the statement that the mental discipline furnished by the mathematics of Euclid and Archimedes was essentially different from that furnished by the analytical mathematics now almost exclusively in use:

> On all these accounts, then, I venture to assert, that while we hold mathematics to be of inestimable value as a permanent study by which the reason of man is to be

educated, we must hold also that the geometrical forms of mathematics must be especially preserved and maintained, as essentially requisite for this office; that analytical mathematics can in no way answer this purpose, and, if the attempt be made so to employ it, will not only be worthless, but highly prejudicial to men's minds.

The modern analytical mathematics, thus condemned by Whewell, is practically the only mathematics now in common use in the United States.

Again, it is obvious that the spirit and method in which Latin has been for the most part studied during the present century are very different from the spirit and method in which it was studied in the preceding centuries. During this century it has been taught as a dead language (except perhaps in parts of Italy and Hungary), whereas it used to be taught as a living language, the common speech of all scholars, both lay and clerical. Those advocates of classical learning who maintain that a dead language must have more disciplinary virtue than a living one would hardly have been satisfied with the prevailing modes of teaching and learning Latin in any century before our own. At any rate, it was a different discipline which Latin supplied when young scholars learned not only to read it, but to write and speak it with fluency.

I venture to inquire next how long Greek has held its present place in the accepted scheme of liberal education. Although the study of Greek took root in Italy as early as 1400, and was rapidly diffused there after the fall of Constantinople in 1453, it can hardly be said to have become established at Paris as a subject worthy the attention of scholars

before 1458, or at Oxford before the end of the fifteenth century. At Paris, for many years after 1458, Greek was taught with indifferent success, and its professors who were mostly foreigners, were excluded from the privileges of regency in the University. Indeed, the subject seems to have long been in the condition of what we should now call an extra study, and its teachers were much in the position of modern-language teachers in an American college, which does not admit them to the faculty. Grocyn, Linacre, and Latimer, who learned Greek at Florence, introduced the study at Oxford in the last years of the fifteenth century; but Anthony Wood says that Grocyn gave lectures of his own free will, and without any emolument. It is certain that in 1578 the instruction in Greek which was given to undergraduates at Cambridge started with the elements of the language; and it is altogether probable that Greek had no real hold in the English grammar schools until the end of the sixteenth century. The statutes which were adopted by the University of Paris in the year 1600 define the studies in arts to be Latin, Greek, Aristotle's philosophy, and Euclid; and they make Greek one of the requirements for admission to the School of Law. It took two hundred years, then, for the Greek language and literature gradually to displace in great part the scholastic metaphysics which, with scholastic theology, had been for generations regarded as the main staple of liberal education; and this displacement was accomplished only after the same sort of tedious struggle by which the new knowledges of the eighteenth and

nineteenth centuries are now winning their way to academic recognition. The revived classical literature was vigorously and sincerely opposed as frivolous, heterodox, and useless for discipline; just as natural history, chemistry, physics, and modern literatures are now opposed. Precisely the same arguments were used by the conservatives of that day which are brought forward by the conservatives of to-day, only they were used against classical literature then, while now they are used in its support. Let it not be imagined that the scholastic metaphysics and theology, which lost most of the ground won by Greek, were in the eyes of the educated men of the twelfth to the sixteenth century at all what they seem to us. They were the chief delight of the wise, learned, and pious; they were the best mental food of at least twelve generations; and they aroused in Europe an enthusiasm for study which has hardly been equaled in later centuries. When Abélard taught at Paris early in the twelfth century, thousands of pupils flocked around his chair; when the Dominican Thomas Aquinas wrote his "Summa Theologiæ," and lectured at Paris, Bologna, Rome, and Naples, in the middle of the thirteenth century, he had a prodigious following, and for three centuries his fame and influence grew; when the Franciscan Duns Scotus lectured at Oxford at the beginning of the fourteenth century, the resort of students to the University seems to have been far greater than it has ever been since. We may be sure that these wonders were not wrought with dust or chaff. Nevertheless, the scholastic theology and metaphysics were in large measure

displaced; and for three hundred years the classical literatures have reigned in their stead.

Authentic history records an earlier change of a fundamental sort in the list of arts called liberal, and consequently in the recognized scheme of liberal education. When Erasmus was a student, that is, in the last third of the fifteenth century, before Greek had been admitted to the circle of the liberal arts, the regular twelve years' course of study included, and had long included, reading, arithmetic, grammar, syntax, poetry, rhetoric, metaphysics, and theology, all studied in Latin; and of these subjects metaphysics and theology occupied half of the whole time, and all of the university period. But in the eleventh century, before Abélard founded scholastic theology, the authoritative list of liberal studies was quite different. It was given in the single line:

Lingua, tropus, ratio, numerus, tonus, angulus, astra.

Most students were content with the first three—grammar, rhetoric, and logic; a few also pursued arithmetic, music, geometry, and astronomy, if these grave names may be properly applied to the strange mixtures of fact and fancy which in obscure Latin versions of Greek and Arabian originals passed for science. It was this privileged circle which scholastic divinity successfully invaded at the beginning of the twelfth century, the success of the invasion being probably due to the fact that religion was then the only thing which could be systematically studied.

This hasty retrospect shows, first, that some of

the studies now commonly called liberal have not long held their present preëminence; and, secondly, that new learning has repeatedly forced its way, in times past, to full academic standing, in spite of the opposition of the conservative, and of the keener resistance of established teachers and learned bodies, whose standing is always supposed to be threatened by the rise of new sciences. History teaches boldness in urging the claims of modern literatures and sciences to full recognition as liberal arts.

The first subject which, as I conceive, is entitled to recognition as of equal academic value or rank with any subject now most honored is the English language and literature. When Greek began to revive in Europe, English was just acquiring a literary form; but when Greek had won its present rank among the liberal arts, Shakespere had risen, the English language was formed, and English literature was soon to become the greatest of modern literatures. How does it stand now, with its immense array of poets, philosophers, historians, commentators, critics, satirists, dramatists, novelists, and orators? It cannot be doubted that English literature is beyond all comparison the amplest, most various, and most splendid literature which the world has seen; and it is enough to say of the English language that it is the language of that literature. Greek literature compares with English as Homer compares with Shakespere, that is, as infantile with adult civilization. It may further be said of the English language that it is the native tongue of nations which are preëminent in the

world by force of character, enterprise, and wealth, and whose political and social institutions have a higher moral interest and greater promise than any which mankind has hitherto invented. To the original creations of English genius are to be added translations into English of all the masterpieces of other literatures, sacred and profane. It is a very rare scholar who has not learned much more about the Jews, the Greeks, or the Romans through English than through Hebrew, Greek, or Latin.

And now, with all this wonderful treasure within reach of our youth, what is the position of American schools and colleges in regard to teaching English? Has English literature the foremost place in the programs of schools? By no means; at best only a subordinate place, and in many schools no place at all. Does English take equal rank with Greek or Latin in our colleges? By no means; not in the number and rank of the teachers, or in the consideration in which the subject is held by faculty and students, or in the time which may be devoted to it by a candidate for a degree. Until within a few years the American college made no demand upon candidates for admission in regard to knowledge of English; and now that some colleges make a small requirement in English, the chief result of the examinations is to demonstrate the woeful ignorance of their own language and literature which prevails among the picked youth of the country. Shall we be told, as usual, that the best way to learn English is to study Latin and Greek? The answer is that the facts do not corroborate this improbable hypothesis. American youth in large

numbers study Latin and Greek, but do not thereby learn English. Moreover, this hypothesis is obviously inapplicable to the literatures. Shall we also be told, as usual, that no linguistic discipline can be got out of the study of the native language? How, then, was the Greek mind trained in language? Shall we be told that knowledge of English literature should be picked up without systematic effort? The answer is, first, that as a matter of fact this knowledge is not picked up by American youth; and, secondly, that there never was any good reason to suppose that it would be, the acquisition of a competent knowledge of English literature being not an easy but a laborious undertaking for an average youth—not a matter of entertaining reading, but of serious study. Indeed, there is no subject in which competent guidance and systematic instruction are of greater value. For ten years past Harvard University has been trying, first, to stimulate the preparatory schools to give attention to English, and, secondly, to develop and improve its own instruction in that department; but its success has thus far been very moderate. So little attention is paid to English at the preparatory schools that half of the time, labor, and money which the University spends upon English must be devoted to the mere elements of the subject. Moreover, this very year at Harvard less than half as much instruction, of proper university grade, is offered in English as in Greek or in Latin. The experience of all other colleges and universities resembles in this respect that of Harvard.

This comparative neglect of the greatest of lit-

eratures in American schools and colleges is certainly a remarkable phenomenon. How is it to be explained? First, by the relative newness of this language and literature: it requires two or three hundred years to introduce new intellectual staples; secondly, by the real difficulty of teaching English well—a difficulty which has only of late years been overcome; and, thirdly, by the dazzling splendor of the revived Greek and Latin literatures when in the fourteenth and fifteenth centuries they broke upon the mind of western Europe. Through the force of custom, tradition, inherited tastes, and transmitted opinions, the educational practices of to-day are still cast in the molds of the seventeenth century. The scholars of that time saw a great light which shone out of darkness, and they worshiped it; and we, their descendants in the ninth generation, upon whom greater lights have arisen, still worship at the same shrine. Let us continue to worship there; but let us pay at least equal honors to the glorious lights which have since been kindled.

The next subjects for which I claim a position of academic equality with Greek, Latin, and mathematics are French and German. This claim rests not on the usefulness of these languages to couriers, tourists, or commercial travelers, and not on their merit as languages, but on the magnitude and worth of the literatures, and on the unquestionable fact that facility in reading these languages is absolutely indispensable to a scholar, whatever may be his department of study. Until within one hundred or one hundred and fifty years, scholarship had a common language, the Latin; so that scholars of all

the European nationalities had a perfect means of communication, whether in speaking, writing or printing. But the cultivation of the spirit of nationality and the development of national literatures have brought about the abandonment of Latin as the common language of learning, and imposed on every student who would go beyond the elements of his subject the necessity of acquiring at least a reading knowledge of French and German, besides Latin. Indeed, the advanced student of our day can dispense with Latin better than with French, German, or English; for, although the antiquated publications in any science may be printed in Latin, the recent (which will probably contain all that is best in the old) will be found printed in one of these modern languages. I cannot state too strongly the indispensableness of both French and German to the American or English student. Without these languages he will be much worse off in respect to communicating with his contemporaries than was the student of the seventeenth century who could read and speak Latin; for through Latin the student of the year 1684 could put himself into direct communication with all contemporary learning. So far as I know, there is no difference of opinion among American scholars as to the need of mastering these two languages in youth. The philologists, archæologists, metaphysicians, physicians, physicists, naturalists, chemists, economists, engineers, architects, artists, and musicians, all agree that a knowledge of these languages is indispensable to the intelligent pursuit of any one of their respective subjects beyond its elements. Every college

professor who gives a thorough course of instruction—no matter in what department—finds himself obliged to refer his pupils to French and German authorities. In the reference library of any modern laboratory, whether of chemistry, physics, physiology, pathology, botany, or zoölogy, a large proportion of the books will be found to be in French or German. The working library of the philologist, archæologist, or historian teaches the same lesson. Without a knowledge of these two languages it is impossible to get at the experience of the world upon any modern industrial, social, or financial question, or to master any profession which depends upon applications of modern science. I urge no utilitarian argument, but rest the claims of French and German for admission to complete academic equality on the copiousness and merit of the literatures, and the indispensableness of the languages to all scholars.

Such being the reasons for teaching French and German to all young scholars at an early stage of their training, what is the condition of these languages at American schools and colleges? For answer to this question I will describe the condition of instruction in French and German at Yale College, an institution, I need not say, which holds a leading position among American colleges. No knowledge of either French or German is required for admission to Yale College, and no instruction is provided in either language before the beginning of the Junior year. In that year German must be and French may be studied, each four hours a week; in the Senior year either language may be

studied four hours a week. In other words, Yale College does not suggest that the preparatory schools ought to teach either French or German, does not give its students the opportunity of acquiring these languages in season to use them in other studies, and does not offer them any adequate opportunity of becoming acquainted with the literature of either language before they take the bachelor's degree. Could we have stronger evidence than this of the degraded condition of French and German in the mass of our schools and colleges? A few colleges have lately been demanding a small amount of French or German for admission, and a few schools have met this very moderate demand; but, as a general rule, American boys who go to college devote from two to three solid years to Greek and Latin, but study French and German scarcely at all while at school, and at college only for a part of the time during the latter half of the course. The opportunities and facilities for studying Greek and Latin in our schools and colleges are none too great; but surely the opportunities and facilities for studying French and German are far too small. The modern languages should be put on an equality with the ancient.

The next subject which demands an entirely different position from that it now occupies in American schools and colleges is history. If any study is liberal and liberalizing, it is the modern study of history—the study of the passions, opinions, beliefs, arts, laws, and institutions of different races or communities, and of the joys, sufferings,

conflicts, and achievements of mankind. Philology and polite literature arrogate the title of the "humanities"; but what study can so justly claim that honorable title as the study which deals with the actual experience on this earth of social and progressive man? What kind of knowledge can be so useful to a legislator, administrator, journalist, publicist, philanthropist, or philosopher as a well-ordered knowledge of history? If the humanity or liberality of a study depends upon its power to enlarge the intellectual and moral interests of the student, quicken his sympathies, impel him to the side of truth and virtue, and make him loathe falsehood and vice, no study can be more humane or liberal than history. These being the just claims of history in general, the history of the community and nation to which we belong has a still more pressing claim upon our attention. That study shows the young the springs of public honor and dishonor; sets before them the national failings, weaknesses, and sins; warns them against future dangers by exhibiting the losses and sufferings of the past; enshrines in their hearts the national heroes; and strengthens in them the precious love of country. One would naturally suppose that the history of the United States and England, at least, would hold an important place in the programs of American schools and colleges, and that no subject would occupy a more dignified position in the best colleges and universities than history in respect to the number and rank of its teachers. The facts do not accord with this natural supposition. The great majority of American col-

leges (there are nearly four hundred of them) make no requirements in history for admission, and have no teacher of history whatever. Lest it be imagined that this can be true only of inferior colleges, I will mention that in so old and well-established a college as Dartmouth there is no teacher of history, whether professor, tutor, or temporary instructor; while in so excellent an institution as Princeton there is only one professor of history against three of Greek, and this single professor includes political science with history in his teaching. No institution which calls itself a college expects to do without a professor of Greek, or of Latin, or of mathematics; but nearly all of them do without a teacher of history. The example of the colleges governs the preparatory schools. When young men who are interested in historical study ask me if it would be advisable for them to fit themselves to teach history for a livelihood, I am obliged to say that it would be the height of imprudence on their part, there being only an infinitesimal demand for competent teachers of history in our whole country. This humiliated condition of history is only made the more conspicuous by the old practice, which still obtains at some colleges (Harvard College, for instance), of demanding from all candidates for admission a small amount of Greek and Roman history—as much as a clever boy could commit to memory in three or four days. One hardly knows which most to wonder at in this requirement, the selection of topic or the minuteness of the amount. Is it not plain that the great

subject of history holds no proper place in American education?

Closely allied to the study of history is the study of the new science called political economy, or public economics. I say the new science, because Smith's "Wealth of Nations" was not published until 1776; Malthus's "Essay on the Principle of Population" appeared only in 1798; and Ricardo's "Political Economy and Taxation," in 1817. The subject is related to history, inasmuch as it gleans its most important facts by the study of the institutions and industrial and social conditions of the past; it is the science of wealth in so far as it deals with the methods by which private or national wealth is accumulated, protected, enjoyed, and distributed; and it is connected with ethics in that it deals with social theories and the moral effects of economic conditions. In some of its aspects it were better called the science of the health of nations; for its results show how nations might happily grow and live in conformity with physical and moral laws. It is by far the most complex and difficult of the sciences of which modern education has to take account, and therefore should not be introduced too early into the course of study for the degree of Bachelor of Arts; but when it is introduced, enough of it should be offered to the student to enable him to get more than a smattering.

When we consider how formidable are the industrial, social, and political problems with which the next generations must grapple,—when we observe how inequalities of condition increase, notwithstanding the general acceptance of theories

of equality; how population irresistibly tends to huge agglomerations, in spite of demonstrations that such agglomerations are physically and morally unhealthy; how the universal thirst for the enjoyments of life grows hotter and hotter, and is not assuaged; how the relations of government to society become constantly more and more complicated, while the governing capacity of men does not seem to increase proportionally; and how free institutions commit to masses of men the determination of public policy in regard to economic problems of immense difficulty, such as the problems concerning tariffs, banking, currency, the domestic carrying trade, foreign commerce, and the incidence of taxes,—we can hardly fail to appreciate the importance of offering to large numbers of American students ample facilities for learning all that is known of economic science.

How does the ordinary provision made in our colleges for the study of political economy meet this need of students and of the community? That I may not understate this provision, I will describe the provisions made at Columbia College, an institution which is said to be the richest of our colleges, and at Brown University, one of the most substantial of the New England colleges. At Columbia, Juniors must attend two exercises a week in political economy for half the year, and Seniors may elect that subject for two hours a week throughout the year. At Brown, Juniors may elect political economy two hours a week for half the year, and Seniors have a like privilege. The provision of instruction in Greek at Brown is

five and a half times as much as the provision in political economy, and seven elevenths of the Greek is required of all students, besides the Greek which was required at school; but none of the political economy is required. Columbia College makes a further provision of instruction in history, law, and political science for students who are able to devote either one or two years to these subjects after taking the degree of Bachelor of Arts, or who are willing to procure one year's instruction in these subjects by accepting the degree of Bachelor of Philosophy instead of the degree of Bachelor of Arts—a very high price to pay for this one year's privilege. If this is the state of things in two leading Eastern colleges with regard to instruction in political economy, what should we find to be the average provision in American colleges? We should find it poor in quality and insignificant in amount. In view of this comparative neglect of a subject all-important to our own generation and to those which are to follow, one is tempted to join in the impatient cry, Are our young men being educated for the work of the twentieth century or of the seventeenth? There can be no pretense that political economy is an easy subject, or that it affords no mental discipline. Indeed, it requires such exactness of statement, such accurate weighing of premises, and such closeness of reasoning, that many young men of twenty, who have been disciplined by the study of Greek, Latin, and mathematics for six or eight years, find that it tasks their utmost powers. Neither can it be justly called a material or utilitarian subject; for it is full of grave

moral problems, and deals with many questions of public honor and duty.

The last subject for which I claim admission to the magic circle of the liberal arts is natural science. All the subjects which the sixteenth century decided were liberal, and all the subjects which I have heretofore discussed, are studied in books; but natural science is to be studied not in books but in things. The student of languages, letters, philosophy, mathematics, history, or political economy, reads books, or listens to the words of his teacher. The student of natural science scrutinizes, touches, weighs, measures, analyzes, dissects, and watches things. By these exercises his powers of observation and judgment are trained, and he acquires the precious habit of observing the appearances, transformations, and processes of nature. Like the hunter and the artist, he has open eyes and an educated judgment in seeing. He is at home in some large tract of nature's domain. Finally, he acquires the scientific method of study in the field, where that method was originally perfected. In our day, the spirit in which a true scholar will study Indian arrow-heads, cuneiform inscriptions, or reptile tracks in sandstone, is one and the same, although these objects belong respectively to three separate sciences—archæology, philology, and paleontology. But what is this spirit? It is the patient, cautious, sincere, self-directing spirit of natural science. One of the best of living classical scholars, Professor Jebb of Glasgow, states this fact in the following forcible words: "The diffusion of that which is specially

named science has at the same time spread abroad the only spirit in which any kind of knowledge can be prosecuted to a result of lasting intellectual value." Again, the arts built upon chemistry, physics, botany, zoölogy, and geology are chief factors in the civilization of our time, and are growing in material and moral influence at a marvelous rate. Since the beginning of this century, they have wrought wonderful changes in the physical relation of man to the earth which he inhabits, in national demarcations, in industrial organization, in governmental functions, and in the modes of domestic life; and they will certainly do as much for the twentieth century as they have done for ours. They are not simply mechanical or material forces; they are also moral forces of great intensity. I maintain that the young science which has already given to all sciences a new and better spirit and method, and to civilization new powers and resources of infinite range, deserves to be admitted with all possible honors to the circle of the liberal arts; and that a study fitted to train noble faculties, which are not trained by the studies now chiefly pursued in youth, ought to be admitted on terms of perfect equality to the academic curriculum.

The wise men of the fifteenth century took the best intellectual and moral materials existing in their day,—namely, the classical literatures, metaphysics, mathematics, and systematic theology,—and made of them the substance of the education which they called liberal. When we take the best intellectual and moral materials of their day and

of ours to make up the list of subjects worthy to rank as liberal, and to be studied for discipline, ought we to omit that natural science which in its outcome supplies some of the most important forces of modern civilization? We do omit it. I do not know a single preparatory school in this country in which natural science has an adequate place, or any approach to an adequate place, although some beginnings have lately been made. There is very little profit in studying natural science in a book, as if it were grammar or history; for nothing of the peculiar discipline which the proper study of science supplies can be obtained in that way, although some information on scientific subjects may be so acquired. In most colleges a little scientific information is offered to the student through lectures and the use of manuals, but no scientific training. The science is rarely introduced as early as the Sophomore year; generally it begins only with the Junior year, by which time the mind of the student has become so set in the habits which the study of languages and mathematics engenders, that he finds great difficulty in grasping the scientific method. It seems to him absurd to perform experiments or make dissections. Can he not read in a book, or see in a picture, what the results will be? The only way to prevent this disproportionate development of the young mind on the side of linguistic and abstract reasoning is to introduce into school courses of study a fair amount of training in sciences of observation. Over against four languages, the elements of mathematics, and the elements of history,

there must be set some accurate study of things. Were other argument needed, I should find it in the great addition to the enjoyment of life which results from an early acquaintance and constant intimacy with the wonders and beauties of external nature. For boy and man this intimacy is a source of ever-fresh delight.

To the list of studies which the sixteenth century called liberal, I would therefore add, as studies of equal rank, English, French, German, history, political economy, and natural science, not one of which can be said to have existed in mature form when the definition of liberal education which is still in force was laid down. In a large university many other languages and sciences will be objects of study; I confine myself here to those studies which, in my judgment, are most desirable in an ordinary college. We are now in position to consider how the necessity for allowing choice among studies has arisen.

The second and third of the three principal propositions which I wish to demonstrate—namely, that earlier choice should be allowed among coordinate studies, and that the existing order of studies needs to be modified—may be treated much more briefly than the first proposition, although in them lies the practical application of the whole discussion. When the men of the sixteenth century had taken all the sciences known to their generation to make up their curriculum of liberal study, the sum was not so large as to make it impossible for a student to cover the whole ground effectually. But if the list of liberal arts is ex-

tended, as I have urged, it is manifest that no man can cover the whole ground and get a thorough knowledge of any subject. Hence the necessity of allowing the student to choose among many co-ordinate studies the few to which he will devote himself. In a vain endeavor to introduce at least some notions about the new sciences into the curriculum of the year 1600, the managers of American colleges have made it impossible for the student to get a thorough knowledge of any subject whatever. The student has a better chance to learn Greek and Latin than anything else; but he does not get instruction enough in these languages to enable him to master them. In no other subject can he possibly get beyond the elements, if he keep within the official schedules of studies. Consider what sort of an idea of metaphysics can be obtained from a single text-book of moderate size, into which the whole vast subject has been filtered through one preoccupied mind; or of physics from a short course of lectures and a little manual of three or four hundred pages prepared by a teacher who is not himself an investigator; or of political economy from a single short treatise by an author not of the first rank. These are not imaginary sketches; they are described from the life. Such are the modes of dealing with these sciences which prevail in the great majority of American colleges. I need not dwell upon this great evil, which is doing untold injury every year. The remedies are plain. First, let the new studies be put in every respect on a level with the old; and then let such a choice among coördinate studies be given as to

secure to the student a chance to be thorough in something. To be effective, option must be permitted earlier than it is now. This proposition—that earlier options are desirable—cannot be discussed without simultaneously considering the order of studies at school and college.

Boyhood is the best time to learn new languages; so that as many as possible of the four languages, French, German, Latin, and Greek, ought to be begun at school. But if all boys who are to receive a liberal education are required to learn to read all four languages before they go to college, those boys who are not quick at languages will have very little time for other studies. English, the elements of mathematics, the elements of some natural science properly taught, and the history of England and the United States being assumed as fundamentals, it is evident that some choice among the four remaining languages must be allowed, in order not to restrict unduly the number of boys who go to college. With very good instruction, many boys could doubtless learn to read all four languages tolerably well before they were eighteen years old without sacrificing more essential things; but there are boys of excellent capacity in other subjects who could not accomplish this linguistic task; and in many States of the Union it is quite impossible to get very good instruction in all these languages. Therefore I believe that an option should be allowed among these four languages at college admission examinations, any three being accepted, and the choice being determined in each case by the wishes of parents, the advice of teachers, the des-

tination of the candidate if settled, the better quality of accessible instruction in one language than in another, or the convenience of the school which the candidate attends. Whichever language the candidate did not offer at admission he should have opportunity to begin and pursue at college.

As to the best order in which to take up these four languages, I notice that most persons who have thought of the matter hold some theory about it with more or less confidence; but that the English-speaking peoples have little or no experience upon the subject. One would naturally suppose that easiest first, hardest last, would be a good rule; but such is not the present practice in this country. On the contrary, Latin is often begun before French; and it is common to begin Greek at fourteen and German at twenty. In education, as in other things, I am a firm believer in the principle of expending the least force which will accomplish the object in view. If a language is to be learned, I would teach it in the easiest known method, and at the age when it can be easiest learned. But there is another theory which is often acted upon, though seldom explicitly stated—the theory that, for the sake of discipline, hardness that is avoidable should be deliberately imposed upon boys; as, for instance, by forcing a boy to study many languages who has no gifts that way and can never attain to any mastery of them. To my mind the only justification of any kind of discipline, training, or drill is attainment of the appropriate end of that discipline. It is a waste for society, and an outrage upon the individual, to

make a boy spend the years when he is most teachable in a discipline the end of which he can never reach, when he might have spent them in a different discipline, which would have been rewarded by achievement. Herein lies the fundamental reason for options among school as well as college studies, all of which are liberal. A mental discipline which takes no account of differences of capacity and taste is not well directed. It follows that there must be variety in education instead of uniform prescription. To ignorant or thoughtless people it seems that the wisdom and experience of the world ought to have produced by this time a uniform course of instruction good for all boys, and made up of studies permanently preëminent; but there are two strong reasons for believing that this convenient result is unattainable: in the first place, the uniform boy is lacking; and, in the second place, it is altogether probable that the educational value of any established study, far from being permanently fixed, is constantly changing as new knowledge accumulates and new sciences come into being. Doubtless the eleventh century thought it had a permanent curriculum in *"Lingua, tropus, ratio, numerus, tonus, angulus, astra"*; doubtless the course of study which Erasmus followed was held by the teachers of that day to supply the only sufficient liberal education; and we all know that since the year 1600, or thereabouts, it has been held by the wisest and most cultivated men that Greek, Latin, and mathematics are the only good disciplinary studies. Whewell, whose foible was omniscience, did not hesitate to apply to these three

studies the word "permanent." But if history proves that the staples of education have in fact changed, reason says still more clearly that they must change. It would be indeed incredible that organized education should not take account of the progress of knowledge. We may be sure that the controlling intellectual forces of the actual world, century by century, penetrate educational processes, and that languages, literatures, philosophies, or sciences which show themselves fruitful and powerful must win recognition as liberal arts and proper means of mental discipline.

Two objections to the views which I have been presenting occur at once to every conservative mind. I have often been met with the question: Is this traditional degree of Bachelor of Arts, which for three hundred years, at least, has had a tolerably clear meaning, to be deprived of all exact significance, so that it will be impossible to tell what one who holds the degree has studied? I reply that the degree will continue to testify to the main fact to which it now bears witness, namely, that the recipient has spent eight or ten years, somewhere between the ages of twelve and twenty-three, in liberal studies. I might add that the most significant and valuable degree in arts which is anywhere given—the German degree of Doctor of Philosophy and Master of Arts—does not stand for any particular studies, and does not indicate in any individual case the special studies for which it was conferred, although it does presuppose the earlier accomplishment, at a distance of several years, of the curriculum of a German gymnasium.

A second objection is expressed in the significant question: What will become of Greek and Latin if all these new subjects are put on an equality with them? Will Greek and Latin, and the culture which they represent, survive the invasion? To this question I answer, first, that it is proposed, not to substitute new subjects for the old, but only to put new subjects beside the old in a fair competition, and not to close any existing road to the degree of Bachelor of Arts, but only to open new ones; secondly, that the proposed modification of the present prescription of Greek and Latin for all boys who are to go to college will rid the Greek and Latin classes of unwilling and incapable pupils, to the great advantage of the pupils who remain; and, thirdly, that the withdrawal of the artificial protection now given to the Classics will cause the study of classical antiquity to rely—to use the well-chosen words of Professor Jebb on the last page of his life of Bentley—"no longer upon a narrow or exclusive prescription, but upon a reasonable perception of its proper place amongst the studies which belong to a liberal education." The higher the value which one sets on Greek and Latin as means of culture, the firmer must be his belief in the permanence of those studies when they cease to be artificially protected. In education, as elsewhere, it is the fittest that survives. The Classics, like other studies, must stand upon their own merits; for it is not the proper business of universities to force subjects of study, or particular kinds of mental discipline, upon unwilling generations; and they cannot prudently undertake that function, especially

in a country where they have no support from an established church, or from an aristocratic organization of society, and where it would be so easy for the generations, if repelled, to pass the universities by.

Finally, the enlargement of the circle of liberal arts may justly be urged on the ground that the interests of the higher education and of the institutions which supply that education demand it. Liberal education is not safe and strong in a country in which the great majority of the men who belong to the intellectual professions are not liberally educated. Now, that is just the case in this country. The great majority of the men who are engaged in the practice of law and medicine, in journalism, the public service, and the scientific professions, and in industrial leadership, are not Bachelors of Arts. Indeed, the only learned profession which contains to-day a large proportion of Bachelors of Arts is the ministry. This sorry condition of things is doubtless due in part to what may be called the pioneer condition of American society; but I think it is also due to the antiquated state of the common college curriculum, and of the course of preparatory study at school. When institutions of learning cut themselves off from the sympathy and support of large numbers of men whose lives are intellectual, by refusing to recognize as liberal arts and disciplinary studies languages, literatures, and sciences which seem to these men as important as any which the institutions cultivate, they inflict a gratuitous injury both on themselves and on the country which they should

serve. Their refusal to listen to parents and teachers who ask that the avenues of approach to them may be increased in number, the new roads rising to the same grade or level as the old, would be an indication that a gulf already yawned between them and large bodies of men who by force of character, intelligence, and practical training are very influential in the modern world. For twenty years past signs have not been wanting that the American college was not keeping pace with the growth of the country in population and wealth. I believe that a chief cause of this relative decline is the narrowness of the course of study in both school and college.

The execution of the principles which I have advocated would involve considerable changes in the order of school and college studies. Thus, science-teaching should begin early in the school course; English should be studied from the beginning of school life to the end of college life; and the order in which the other languages are taken up should be for many boys essentially changed. We should in vain expect such changes to be made suddenly. They must be gradually brought about by the pressure of public opinion—by the public opinion of the educated classes taking gradual effect through established educational instrumentalities. The change will be wrought by the demands of parents upon private schools; by the influence of trustees and committees in charge of endowed and public schools upon school courses of study; by the conditions which benefactors and founders impose upon their gifts and bequests to liberal education; by the

competition of industrial and technological schools; and by the gradual encroachment of the modern subjects upon the ancient in colleges and universities. All these influences are at work, and much ground has been gained during the last fifteen years.

1884

THE AIMS OF THE HIGHER EDUCATION

THE subject which I have the honor of presenting to you this evening is a noble one: the aims of the higher education—not its actual attainments, and not even its hopes of attainment in the near future, but its aims, the distant objects which it keeps in view, the ideals toward which it aspires. Let us first briefly consider what is meant by the higher education. In the division of that long course of education which the most thoroughly trained young American can get—a course which covers about twenty years between the sixth and the twenty-sixth or twenty-seventh year—the higher education is that which he receives after he is eighteen or nineteen years of age. It is that which he receives in the comparative freedom of college or university after school life is ended, and usually after his home life with his parents is over. It ordinarily covers three or four years of instruction in what are called the liberal arts or sciences, and after that period a professional training—a broad term, which includes the special training for the professions of divinity, law, medicine, engineering, applied chemistry, architecture, teaching, and various other callings which require both special learning and special skill. The higher education

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thus covers a period of six or seven years. It is given in universities—institutions in which a young man is more or less separated from the working world, and enabled to devote himself to systematic study and practice. Many people draw a distinction between an educated and a practical man; but true education is, after all, nothing but systematic study and practice under guidance. In this comparative seclusion the young man learns something of what has been done and thought in the world, before he takes active part in its work. He puts himself in some one subject abreast of the accumulated wisdom of the past; he develops and increases his own powers, and gains command of those powers. He gets knowledge, to be sure, but, better than that, he gets power. Some college-bred men develop only their powers of acquisition. They absorb knowledge, but cannot give it out or apply it. The powers of exposition and application are more important than the power of acquisition, and should be trained as carefully. The student who cannot apply the principles of geometry to new problems may have gained knowledge through his study of that subject, but he has not gained available power. Universities too often forget this. They are even now modifying many of their methods the better to cultivate effective power in their students. The main gain from elaborate education is added power.

Universities have three principal, direct functions. In the first place, they teach; secondly, they accumulate great stores of acquired and systematized knowledge in the form of books and collections;

thirdly, they investigate, or, in other words, they seek to push out a little beyond the present limits of knowledge, and learn, year after year, day after day, some new truth. They are teachers, storehouses, and searchers for truth. Let us consider for a few moments the university in each of these fundamental functions.

1. A university teaches. What does it teach? It must obviously teach all the languages in which the great literatures which have been preserved were written—Hebrew, Arabic, Sanskrit, Greek, Latin, French, Italian, German, Scandinavian, and English; it must teach all history—Babylonian, Egyptian, Hebrew, Greek, and Roman, and all modern history; it must teach how the most precious human institutions have grown up and come to their present state—the institutions of civil government, of the family, of the church, and of the school; it must teach everything that human insight has discovered about the structure and working of the human body and the human mind; it must teach everything mankind has learned about the broad realm of nature —the heavens and the earth, the plants and the animals, aërial, aquatic, and terrestrial; it must set forth the laws of all the great chemical, physical, and biological forces mankind has discerned, and in subordination to which the race lives; and, finally, it must set before its pupils the literatures of the world,—the precious fruit of the human imagination in its farthest reaches,—and it must interpret those great ideals of our race, virtue, duty, piety, and righteousness. All these are included in what are termed the liberal arts and sciences. Beyond

this immense body of instruction lie the professional subjects. The expansion of professional education is one of the main characteristics of educational progress during the past twenty-five years in all civilized countries. In every profession the number of new subjects which a master in the profession must understand is formidable, and in consequence the time demanded for preparing a young man for any one of the professions is constantly increasing. Four years is now a moderate period for preparation for any one of the learned or scientific professions. In a university all the learned or scientific professions may be prepared for.

The division of subject between the professional schools of a university is deep and wide. The student of medicine hardly touches one of the subjects to which the student of divinity or of law must almost exclusively devote himself; the student of theology pays no attention to a great group of subjects which occupies completely the time of the student of electrical engineering for four years; yet in a true university the spirit of the teaching and of the study in preparation for all these varied professions is one and the same, viz., the spirit of modern science—candid, fearless, truth-seeking, searching for the fact regardless of the consequences.

The president of a university is a member of all its faculties. He listens to the discussions in all the faculties on subjects and methods of instruction, and learns to recognize the modes of thought of the teachers in the various fields. In the true university he will always see that the spirit is one, while the subjects are diverse. There is to-day no

difference between the philologist's method of study and the naturalist's, or between a psychologist's method and a physiologist's. Students of history and natural history, of physics and metaphysics, of literature and the fine arts, find that, though their fields of study are different, their method and spirit are the same. This oneness of method characterizes the true university, and partly justifies the name. This observation can best be made, and this fundamental lesson learned, in a large institution which comprehends all the knowledges, and contains students pursuing a great variety of researches.

By the side of the schools ordinarily called professional there stands in the true university an advanced school of liberal arts and sciences, ordinarily called, in the United States, the graduate school, department, or course. This is the professional school for teachers, men of letters, journalists, naturalists, physicists, chemists, and mathematicians. Observe the extraordinary variety and the range of the teaching which every university must aim to give. Cornell's description of the university he wished to found was a just one: "I would found an institution in which any one may study anything." Nothing short of this is the true aim of a university in teaching. It should cover the whole field of human knowledge, and be able to bring its students to the very frontier of acquired knowledge in every direction. Its methods of teaching are necessarily diverse; they include the recitation, the lecture by the professor and the lecture by the student, the individual instruction in laboratories, written

exercises in great variety, observation in the field, bed-side study for medicine and surgery, quick note-taking and sketching, and the elaborate thesis. Intimate conversational and critical methods for advanced students are comprehended under the terms "conference" and "seminary." In each of the great professions there are opportunities for wide excursions outside of the most necessary fields of knowledge. Thus, in the study of divinity the historical courses may include not only the history of the Christian church, but the comparative study of all known religions; in medicine there is the great field of veterinary medicine, now so important for the advancement of human medicine; and in law there is a wide range of inquiry into the history of legal institutions and legal principles, most of which may be traced back for centuries. Again, in every active and progressive university there is an incessant development of scientific classifications, a new ordering of facts, and a new presentation of the results of investigation. Every generation recasts the statements and theories of the preceding, and presents old facts under new forms. This brief outline may perhaps picture to you the ideals of a university as teacher.

2. Let us next consider the university as storehouse. At the heart of every university there must be a great library. A small collection of books will do for the elementary student, but the advanced student needs a large collection; and the university that undertakes to provide for the wants of advanced students in all departments absolutely requires an immense collection of books, and must

have the means of buying every year all the really good books that are issued in the civilized world. This means great cost, not only for the purchase of books and periodicals, but for cataloguing and shelving, and then for delivering the books to readers with expedition and security. On its collections of books alone Harvard University spends between forty-five and fifty thousand dollars a year, and could advantageously spend much more. A century ago books were almost the only great store which a university was expected to accumulate, but now it must possess, besides the library, great collections in every branch of natural history—collections of stuffed animals, dried plants, fossils, rocks, and minerals; of living trees, shrubs, and flowers; and of apparatus in chemistry, physics, and biology. Again, it is not enough to make great collections to illustrate the actual condition of the animal, vegetable, and mineral kingdoms; the university must illustrate past conditions also by means of geological, historical, and archæological collections. A great university must also illustrate the history of the fine arts, if not by original works, at least by reproductions; and such a museum should illustrate the art, not of a single nation, but of all nations, and not of a single generation, but of all generations which have left to us any of their handiwork. The great collections of a university are necessary means of teaching; but they teach not only the students of the university, but the public at the university seat. The means of illustrating nature in great collections constantly improve; thus, within recent years artistic glass-blowing has enabled museums

of botany and zoölogy to illustrate in large models what the human eye sees only by the aid of powerful microscopes, and the most fragile and transitory objects, like delicate flowers, are perfectly reproduced in durable form. In like manner the most minute and delicate forms of animal life are reproduced in glass, and represented to the naked eye just as they appear to the observer using high powers in a microscope. The museums of a great university are crowded with objects of the most wonderful beauty—beauty of form and beauty of color, as in birds, butterflies, flowers, and minerals. They teach classification, succession, transmutation, growth, and evolution; but they teach also the abounding beauty and loveliness of creation.

The function of a university considered as a storehouse is indefinitely costly, but it is indispensable; and as man's knowledge of nature enlarges this function of the university will enlarge. It may be doubted whether the American method of providing for the higher education will prove adequate to the enormous expenditure which the university, considered as a storehouse, requires; but if the endowment method fails we shall have to fall back on the European plan of governmental subsidies. The university as storehouse is essential to the intellectual progress of the nation.

3. The university seeks new truth. A university is a society of learned men, each a master in his field; each acquainted with what has been achieved in all past time in his special subject; each prepared to push forward a little the present limits of knowledge; each expecting and hoping to clear

up some tangle or bog on the frontier, or to pierce, with his own little search-light, if only by a hand's-breadth, the mysterious gloom which surrounds on every side the area of ascertained truth. Hence universities are places of research, of diligent inquiry for new or forgotten truth. This function is quite as indispensable as either of the two former. It is indispensable for two reasons: first, because a university which is not a place of research will not long continue to be a good place of teaching; and, secondly, because this incessant, quiet, single-minded search after new truth is the condition of both material and intellectual progress for the nation and for the race. We easily apprehend the fact that the studies of Aristotle, Hippocrates, Kant, Descartes, and Adam Smith, of Copernicus, Newton, Faraday, and Darwin, are the means of intellectual progress; but we do not so clearly discern that material progress also depends on a long series of patient, unrewarded investigations which have been conducted by obscure students, generation after generation, in secluded seats of learning.

An extraordinary development of electrical invention has astonished the world within the last ten years; but those numerous electrical inventions were made possible only by the previous studies of obscure men who contributed this little fact, or that little principle, to the acquired stock of electrical science. Professor Koch of Berlin makes an alleged discovery which profoundly interests the whole civilized world; but he has used the discoveries in bacteriology of scores of unknown men who were his necessary forerunners; and the whole

science of bacteriology is indebted for all its most recent and striking progress to the invention of the immersion-lens, which gave the microscope new power for biological research. Thus a discovery in one science enables some long-prepared and waiting student to take a great step in another, the first discoverer having not the least idea of the direction in which his work may be made most immediately available. Many commercial ventures, new forms of business, and new methods of transportation spring really from remote, obscure, and apparently useless discoveries, the applications of which their discoverer never imagined, and would probably have been profoundly indifferent to.

In this function of truth-seeking by scientific research in every field of human knowledge, the university develops a very peculiar and interesting kind of human being—the scientific specialist. The motives, hopes, and aims of the investigator—I care not in what field of knowledge—are different from those of ordinary humanity. He must have a livelihood; but he is almost completely indifferent to money, except as it secures simple livelihood and opportunity for his work. He is wholly indifferent to notoriety; he even shrinks from and abhors it; and his idea of fame is different from that of other men. He would indeed like to have his name favorably known, not to millions of people, but to five or six students of the Latin dative case, or of the Greek particle αν, or of fossil beetles, or of meteorites, or of starfish. He much dislikes to see his name in the newspaper; but he hopes that a hundred years hence some student of his specialty may

read his name with gratitude in an ancient volume of the proceedings of some learned academy. He is an intense and diligent worker; but the masses of mankind would think he was wasting his time. He eagerly desires what he calls results of investigation; but these results would seem to the populace to have no possible human interest. He is keen-scented, devoted, and enthusiastic, but for objects and ends so remote from common topics that he rarely possesses what is called common sense. The market-place and the forum are to him deserts, and for the common pursuits of men he would say impatiently that he had no time, as Louis Agassiz said when some one asked him why he did not make money. A university should provide a large number of these specialists with a livelihood, with all the needed facilities for their work, such as libraries, collections, laboratories, and assistants, and also with opportunity to teach.

Such being the three principal, direct objects or aims of a university, let us consider some of the less direct but still important purposes which it aims to fulfil.

1. In the first place, a great university exerts a unifying social influence. It is resorted to in most countries, notably in our own country, alike by rich and poor, by the children of the educated and the uneducated—in short, by the children of families of all sorts and conditions. Upon the roll of the students of Harvard University in any year will be found the names of a few sons of the rich and of many more sons of very poor families, while the great body of students belong to the middle class.

In most American colleges, the older as well as the younger, the majority of students are the sons of men who were not themselves highly educated. In no American college is there any considerable proportion of the sons of graduates of that college. In Harvard College—that department of Harvard University which gives the degree of Bachelor of Arts—the number of sons of graduates very seldom, if ever, exceeds one eighth of the whole number. In all American universities, in those of New England quite as conspicuously as in the Western, the whole organization of college life is intensely democratic, and there is a complete fusion of the whole body of students in all the intellectual and all the athletic pursuits of the place. I am not acquainted with any portion of American society, high or low, rich or poor, in which there are so few distinctions and separations based on social inequalities as in the American colleges. The separation between neighbors in a New York tenement-house of the poorest sort is often profound—quite as deep and as persistent as social divisions in the more cultivated or the richer parts of society. It is a great mistake to suppose that social exclusiveness is characteristic only of the fashionable or wealthy class. It manifests itself in every walk of American life, as indeed in all human society, whether savage or civilized. These distinctions are less conspicuous in American colleges and universities than in any other large congregations of Americans coming from families which are strange to one another.

2. In a true university the differences between the various religious denominations are softened,

and mutual respect between these diverse Christian organizations is cultivated. The great universities cannot be conducted as strict denominational organizations. In a nation which has no established church, and in which no one denomination includes more than a small minority of the population, it is impossible to found a university on a sect. Even in those nations of Europe which maintain established churches the universities have abandoned the policy of confining their privileges to the members of that church. Oxford and Cambridge are now wide open to dissenters. The universities of Germany make no distinction between Catholic and Lutheran. The University of France is equally open to Catholic, Protestant, and Jew. With the exception of State universities in the United States, almost all American universities have had a denominational origin; but the leading universities have distinctly abandoned a denominational policy. Harvard University was founded to educate ministers of the established church of the colony of Massachusetts Bay; and for nearly two hundred years it was exclusively in the control of the members of that established church; but for a generation past it has altogether escaped from these limitations. Its students now belong to every religious communion, from the Roman Catholic to the Jew and the Japanese Buddhist. No denomination is represented by more than a small minority among its students; and its officers are selected for their fitness only, without the least regard to their religious affiliations. Yale University, which was, like Harvard, founded in the interest of a single

denomination,—the Congregationalist,—is now returned to the Bureau of Education at Washington, by its own officers, as unsectarian. The State universities, like Michigan, and the new universities, like the Johns Hopkins, Cornell, and Clark, are avowedly free from sectarian control. In such institutions great bodies of American youth acquire a respect for each other's religious inheritances, and learn that conduct has very little to do with creed, or at least is not dependent upon theological opinion. Bringing together the young men of different religious communions is one of the most wholesome functions of great universities, and it is particularly wholesome in a great Protestant democracy like our own.

At Harvard University a peculiarly impressive lesson in religious unity and coöperation is systematically taught. The university maintains daily morning prayers and Sunday evening services throughout the year, and a Thursday afternoon service through the winter months. To conduct these services it employs six preachers belonging to different denominations, all representative men, drawn in the main from the immediate vicinity of the college, but coming in part from places somewhat remote from Cambridge. These gentlemen, whose theological opinions are very different, unite to conduct our chapel services, and for four years this united effort has been extraordinarily successful and instructive. The union on essentials, with the inevitable disregard of non-essential diversities, teaches a lesson of the utmost value to the thou-

sands before whom this truly religious work goes on.

These lessons in religious toleration which great universities can teach are the more precious because we already see firmly established in this country a large number of denominational institutions, and their number is likely to increase. Within twenty years numerous Roman Catholic colleges and seminaries (and lately a strong Catholic university) have been successfully founded, and almost all the Protestant sects have each at least one college or university. I believe that the segregation of the youth of the country in distinct denominational institutions would be undesirable for the country and undesirable for the denominations which should thus separate their youth. The influence of an educated Roman Catholic in an American community is diminished, not increased, if his education has deprived him of all knowledge of his Protestant contemporaries and of the Protestant mode of thought and feeling. Precisely in the same way the influence in after life of the members of the Episcopalian body is diminished, not increased, by their habit of resorting to schools and colleges under the exclusive control of their own religious communion. But, on the other hand, the country has gained much by the education of the youth of all these denominations, even if that education be less comprehensive and broadening than it might have been. An educated Roman Catholic, an educated Anglican, or an educated Baptist is much better for all American uses than an uneducated Roman Catholic, Anglican, or Baptist.

What is desirable, however, is that all the principal colleges and universities of the country should be conducted without denominational bias, and should be resorted to by young men of every religious faith represented among the American people.

3. A university has a unifying influence by its effect upon political divisions. A university which draws its students from a large area, from North and South, from East and West, is sure to contain numerous representatives of every political party in the country. It counts among its students Democrats and Republicans, free-traders and protectionists, spoilsmen and reformers, Prohibitionists and high-license advocates. Not an opinion in politics or on social problems but has numerous representatives in a large body of young men drawn from all parts of the country. There is inevitably incessant discussion on all these themes in any large concourse of intelligent American youth. Societies and leagues are organized to maintain this discussion; debates arise, and public men, as well as university teachers, are invited by student organizations to address them. There is, in short, a continual ferment and agitation on all questions of public interest. This collision of views is wholesome and profitable; it promotes thought on great themes, converts passion into resolution, cultivates forbearance and mutual respect, and teaches young men to admire candor, moral courage, and independence of thought on whatever side these noble qualities may be displayed. It is a serious objection to a local college or university that these diversities of view on political and social topics are

not so likely to be therein represented as in a university of national resort. Harvard University has, in this respect, had great good fortune of late years, drawing its students from all parts of the country, although a decided majority still come from New England. It is an excellent field for the cultivation of political toleration, and for training young men in political honesty and sincerity. The majority of its graduates and its undergraduates are Republican—at any rate, they were so until very lately; in all probability are still so. In recent years it has had the good fortune to provide both parties with their candidates in many Massachusetts contests. Fifteen months ago, as I pointed out in an address I made at that time, both candidates for governor, the presidents of both of the State conventions, and the writers of both political platforms were graduates of Harvard. This year both candidates for governor and several candidates for Congress on each side were again Harvard graduates, while in the strictly local contest for the mayoralty of the city of Cambridge both candidates were graduates of Harvard. This spirit of impartiality is one very desirable for any university. At Cambridge we should like to continue to train as many candidates as possible for both the great parties of the country.

4. A university of national resort exerts a unifying influence through the mutual knowledge which the young men get of one another and hold through life. Every year hundreds of young men go out from each of the great American universities and scatter through the whole country. In

their several places of residence they ordinarily rise to places of trust and influence; and they remain united for life, however separated by distance; united by common associations, and by bonds of friendship and mutual respect. This binding influence might be greatly increased in the United States if our young men should adopt, as they might wisely do, the German practice of migrating from one university to another while seeking the degree of Doctor of Philosophy or Doctor of Science. German unity has been greatly promoted by this practice of university men; and the union of these United States has been greatly consolidated by this influence of colleges and universities, and will be still further cemented in time to come.

5. Again, American universities are schools of public spirit for the communities in which they are situated. They promote thought and labor for the public on the part of private persons in two ways: first, by demanding a great deal of gratuitous service from their trustees, or managers; and, secondly, by encouraging private benefactions for public objects. The Teutonic virtue called "public spirit" is the salvation of a democracy. Every American university demands from its trustees or managers a great deal of unpaid service; and this service is in many cases of high quality, requiring good judgment, knowledge of men, and knowledge of affairs. Indeed, so difficult is the service of trustee for institutions of the higher education that every community has to be trained for generations before it can furnish an adequate supply of

men competent for these functions. It is a great advantage of the older institutions of learning that the communities in which they are situated have been brought up to provide experienced and judicious trustees. The charter under which Harvard University is now conducted was granted in 1650, and has never since been altered. Under that charter seven men administer the whole property of the University, select in the first instance its officers and teachers, and propose its laws. These seven men now meet regularly once a fortnight, for from two to three hours in the middle of the day, and give much other time besides to the service of the University. This Corporation, as it is called, was for a long time the only corporation in the colony and province of Massachusetts, and service upon it is held in eastern Massachusetts to be a highly honorable distinction. Of the seven persons only the president and treasurer receive any compensation. The transmitted experience of that body is of untold value to the University. Many American colleges are nominally governed by boards of trustees, which meet only once or twice a year. In such cases the real government lies elsewhere; but the real governing body, whatever it be, must always be composed of men of sagacity, experience, and public spirit. The diffusion of public spirit throughout an American community by practice on governing boards of academies, colleges, universities, hospitals, asylums, art museums, and libraries is one of the most striking characteristics of our democracy, and one of its chief safeguards. The exercise of any such function takes a man out of

himself, and out of his every-day work, and makes him think and work for some broader and higher interest. In these places an intelligent and liberal man has a chance to serve the public for many consecutive years, which is not ordinarily the case in public elective offices in the United States. He can therefore really accomplish something considerable for the public during his term of service on a charitable or educational trust. Thousands of men scattered over the United States are receiving to-day this education in public spirit and public service, greatly to the benefit of the community as well as their own. In the whole group of institutions thus managed under American law and custom the university is the highest, the most interesting, and the most serviceable.

A university develops public spirit by giving men and women who are disposed to help their kind the best possible opportunity to do so. Whoever wishes to do some perpetual good in this world, whoever hopes to win that finest luxury, must exert his influence upon the young, the healthy, and the promising. Hence university endowments are the quickest, most hopeful, and most lasting means of doing good, generation after generation, to humankind at large, through the most promising youth which each generation selects to receive the highest training. A university endowment works quickly. It takes a youth of eighteen, and in six or seven years transforms him into a social, educational, or commercial power in the world. It works most hopefully because it works on selected material—selected by the force of their

own capacities, or selected by the vigor and attainments of their parents. And its influence is lasting. First, because fine, healthy, highly trained brains are the most amazingly fruitful of products. Seed wheat or corn is nothing to them; they not only work through a lifetime in the service of man, but fire innumerable trains of thought and action, and they also transmit more or less of their quality to succeeding generations. And, secondly, because universities are the most lasting of artificial institutions, except a highly organized church. The ancient universities of Europe have survived the destruction and reconstruction of every other institution, legal, governmental, or commercial, except that of the Greek and the Roman churches. They have lived through the rise and fall of dynasties, parliaments, and constitutions; they have seen all society remodeled from its foundations, and all methods of commerce and war profoundly changed. Even in our own new country we see manifested the same durability amid surrounding changes. Thus, Harvard University has seen the colony of Massachusetts Bay transformed into the province, and the province into the State; and it has seen the State undergo fundamental modifications in its population, industries, and religions. It is older than any existing corporation, court, or governmental organization in Massachusetts.

In still another way the well-conducted university encourages beneficence of private persons for public objects: it gives reasonable assurance that the benefaction will be continuously useful, and will be preserved to do its work century after century.

No smallest gift made to Harvard University for a permanent purpose has ever been lost. Thus, in 1727, the Rev. Thomas Cotton of London gave £33 6*s.* 8*d.* toward the president's salary, and the president still receives between seven and eight dollars a year from that fund. In 1681 Samuel Ward gave the College an island in Boston harbor, called Bumkin Island, and to this day that gift yields a rent of fifty dollars a year. It may in time to come yield a great deal more. Two ministers, Nathaniel Appleton and Henry Gibbs, both of whom became members of the Corporation in the first part of the eighteenth century, left small legacies to the College for the benefit of poor students. A lineal descendant of both of these men, a descendant in the fifth or sixth generation, the son of a farmer, receives his tuition free in the Law School to-day because of the benefactions of these two remote ancestors. Seventy-five years ago Abiel Smith gave to the College twenty thousand dollars wherewith to establish a professorship of the French and Spanish languages and of belles-lettres. That professorship has been successively held by George Ticknor, Henry Wadsworth Longfellow, and James Russell Lowell. Who can estimate the amount of service which that single modest gift has rendered to American literature? Whoever gives wisely to a strong university plants the most fruitful of seed, which will fructify for centuries.

6. Again, a university stands for intellectual and spiritual domination—for the forces of the mind and soul against the overwhelming load of material possessions, interests, and activities which the mod-

ern world carries. This influence is most precious in a new and crude community like the United States, which is still engaged in subduing a wilderness to human uses. Over the greater portion of our national domain the stumps are still standing in the fields, the highways have never been built, the mines are unopened, and the deserts are not irrigated. Under these conditions material production is the chief interest of the people, and wealth rather than health seems to be the principal object of society. A university keeps alive philosophy, poetry, and science, and maintains ideal standards. It stands for plain living against luxury, in a community in which luxurious habits are constantly increasing and spreading. A great university contains hundreds of men—teachers, librarians, and curators—who live on modest salaries with full knowledge that they will never be rich, and that they can leave no considerable inheritance to their children. They do not even aim at the accumulation of property; often they are only too indifferent and careless about money. They seek happiness in other and higher ways than in the prevailing pursuit of wealth; and being men of more than the average ability, industry, and rectitude, they are persons of consideration in the community where they live, although their mode of life is simple and secluded. The luxurious classes find it difficult to understand the delights of such men; and the scholars find it as difficult to imagine the gratifications of luxurious idleness. The common amusements of society have no charm for scholars. No man can be a successful student who does not devote his evenings to

work; and the ordinary university teacher counts an evening given to the theater or to social amusement as an evening lost or wasted. In short, a university exemplifies through its teachers Wordsworth's "plain living and high thinking," and in this respect its influence is of the greatest value in any large American community.

7. Again, a university is in all countries a patriotic institution. Of all national institutions the university has almost always been the most liberal and progressive. This is its natural tendency, for "man thinking"—to use Emerson's phrase—is progressive, and youth, particularly speculative youth, is apt to be revolutionary. All poets and philosophers prophesy; their speculative thought far outruns the practical work of legislators, manufacturers, merchants, and farmers. If we would learn what governmental and social problems the next generation is to be at work upon, we must study the forelooking of poets, teachers, men of letters, and studious youths in the passing generation. Samuel Adams taking his master's degree at Harvard University in 1743 maintained the affirmative in a public discussion of the question whether it be lawful to resist the supreme magistrate if the commonwealth cannot otherwise be preserved. It was thirty-two years later that the embattled farmers fired, at Concord Bridge, the shot heard round the world. Twenty-five years before the outbreak of the Civil War William Ellery Channing stated and enforced all the ethical principles which underlay the whole long struggle against slavery. Longfellow, Lowell, Bryant, and Whittier put into living

verse the sentiments which, thrilling through millions of hearts years after they wrote, supported the Northern States through four long years of desolating war. In Europe the universities, with rare exceptions, have been, and still are, the seats of political and social agitation. In the Massachusetts of 1770 General Gage correctly described Harvard College as a "hotbed of sedition." When the detachment of troops which was to fortify Bunker Hill paraded on the little green opposite the college on the evening of June 16, 1775, it was the president of Harvard College—the patriot minister Langdon—who stood on the doorstep of the house in which Oliver Wendell Holmes was afterward born, and invoked the divine blessing on their enterprise. We remember how the universities and colleges of the North sent forth their young men to the Union armies. The colleges and universities furnish also the historians who record the nation's achievements, and keep alive for future generations the memory of great examples and heroic deeds in the council and the field. I need but mention the names of Palfrey, Prescott, Bancroft, Motley, and Parkman. It is the teachers of the country who build the most enduring monuments to the country's heroes by telling their stories to the children they instruct. It is but natural, then, that universities should be always and everywhere patriotic. They seek ideals, and our country in the modern sense is one of the noblest of ideals, being no longer represented by an idealized person, as the king or queen, but being rather a personified ideal, free, strong, and beautiful.

Do you ask, Are all these aims of the higher education anywhere attained? Nowhere, as yet. But they surely will be as our republic grows in wealth, wisdom, and true worth.

1891

THE FUNCTION OF EDUCATION IN DEMOCRATIC SOCIETY

WHAT the function of education shall be in a democracy will depend on what is meant by democratic education.

Too many of us think of education for the people as if it meant only learning to read, write, and cipher. Now, reading, writing, and simple ciphering are merely the tools by the diligent use of which a rational education is to be obtained through years of well-directed labor. They are not ends in themselves, but means to the great end of enjoying a rational existence. Under any civilized form of government, these arts ought to be acquired by every child by the time it is nine years of age. Competent teachers, or properly conducted schools, now teach reading, writing, and spelling simultaneously, so that the child writes every word it reads, and, of course, in writing spells the word. Ear, eye, and hand thus work together from the beginning in the acquisition of the arts of reading and writing. As to ciphering, most educational experts have become convinced that the amount of arithmetic which an educated person who is not some sort of computer needs to make use of is but small, and that real education should not be delayed or impaired for the sake of acquiring a skill in cipher-

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ing which will be of little use either to the child or to the adult. Reading, writing, and arithmetic, then, are not the goal of popular education.

The goal in all education, democratic or other, is always receding before the advancing contestant, as the top of a mountain seems to retreat before the climber, remoter and higher summits appearing successively as each apparent summit is reached. Nevertheless, the goal of the moment in education is always the acquisition of knowledge, the training of some permanent capacity for productiveness or enjoyment, and the development of character. Democratic education being a very new thing in the world, its attainable objects are not yet fully perceived. Plato taught that the laborious classes in a model commonwealth needed no education whatever. That seems an extraordinary opinion for a great philosopher to hold; but, while we wonder at it, let us recall that only one generation ago in some of our Southern States it was a crime to teach a member of the laborious class to read. In feudal society education was the privilege of some of the nobility and clergy, and was one source of the power of these two small classes. Universal education in Germany dates only from the Napoleonic wars; and its object has been to make intelligent soldiers and subjects, rather than happy freemen. In England the system of public instruction is but twenty-seven years old. Moreover, the fundamental object of democratic education—to lift the whole population to a higher plane of intelligence, conduct, and happiness—has not yet been perfectly apprehended even in the United States.

Too many of our own people think of popular education as if it were only a protection against dangerous superstitions, or a measure of police, or a means of increasing the national productiveness in the arts and trades. Our generation may, therefore, be excused if it has but an incomplete vision of the goal of education in a democracy.

I proceed to describe briefly the main elements of instruction and discipline in a democratic school. As soon as the easy use of what I have called the tools of education is acquired, and even while this familiarity is being gained, the capacities for productiveness and enjoyment should begin to be trained through the progressive acquisition of an elementary knowledge of the external world. The democratic school should begin early—in the very first grades—the study of nature; and all its teachers should, therefore, be capable of teaching the elements of physical geography, meteorology, botany, and zoölogy, the whole forming in the child's mind one harmonious sketch of its complex environment. This is a function of the primary-school teacher which our fathers never thought of, but which every passing year brings out more and more clearly as a prime function of every instructor of little children. Somewhat later in the child's progress toward maturity the great sciences of chemistry and physics will find place in its course of systematic training. From the seventh or eighth year, according to the quality and capacity of the child, plane and solid geometry, the science of form, should find a place among the school studies, and some share of the child's attention that great

subject should claim for six or seven successive years. The process of making acquaintance with external nature through the elements of these various sciences should be interesting and enjoyable for every child. It should not be painful, but delightful; and throughout the process the child's skill in the arts of reading, writing, and ciphering should be steadily developed.

There is another part of every child's environment with which he should early begin to make acquaintance, namely, the human part. The story of the human race should be gradually conveyed to the child's mind from the time he begins to read with pleasure. This story should be conveyed quite as much through biography as through history; and with the descriptions of facts and real events should be entwined charming and uplifting products of the imagination. I cannot but think, however, that the wholly desirable imaginative literature for children remains, in large measure, to be written. The mythologies, Old Testament stories, fairy tales, and historical romances on which we are accustomed to feed the childish mind contain a great deal that is perverse, barbarous, or trivial; and to this infiltration into children's minds, generation after generation, of immoral, cruel, or foolish ideas, is probably to be attributed, in part, the slow ethical progress of the race. The common justification of our practice is that children do not apprehend the evil in the mental pictures with which we so rashly supply them. But what should we think of a mother who gave her child dirty milk or porridge, on the theory that the

child would not assimilate the dirt? Should we be less careful of mental and moral food-materials? It is, however, as undesirable as it is impossible to try to feed the minds of children only upon facts of observation or record. The immense product of the imagination in art and literature is a concrete fact with which every educated human being should be made somewhat familiar, such products being a very real part of every individual's actual environment.

Into the education of the great majority of children there enters as an important part their contribution to the daily labor of the household and the farm, or, at least, of the household. It is one of the serious consequences of the rapid concentration of population into cities and large towns, and of the minute division of labor which characterizes modern industries, that this wholesome part of education is less easily secured than it used to be when the greater part of the population was engaged in agriculture. Organized education must, therefore, supply in urban communities a good part of the manual and moral training which the coöperation of children in the work of father and mother affords in agricultural communities. Hence the great importance in any urban population of facilities for training children to accurate hand-work, and for teaching them patience, forethought, and good judgment in productive labor.

Lastly, the school should teach every child, by precept, by example, and by every illustration its reading can supply, that the supreme attainment for any individual is vigor and loveliness of char-

acter. Industry, persistence, veracity in word and act, gentleness, and disinterestedness should be made to thrive and blossom during school life in the hearts of the children who bring these virtues from their homes well started, and should be planted and tended in the less fortunate children. Furthermore, the pupils should be taught that what is virtue in one human being is virtue in any group of human beings, large or small—a village, a city, or a nation; that the ethical principles which should govern an empire are precisely the same as those which should govern an individual; and that selfishness, greed, falseness, brutality, and ferocity are as hateful and degrading in a multitude as they are in a single savage.

The education thus outlined is what I think should be meant by democratic education. It exists to-day only among the most intelligent people, or in places singularly fortunate in regard to the organization of their schools; but though it be the somewhat distant ideal of democratic education, it is by no means an unattainable ideal. It is the reasonable aim of the public school in a thoughtful and ambitious democracy. It, of course, demands a kind of teacher much above the elementary-school teacher of the present day, and it also requires a larger expenditure upon the public school than is at all customary as yet in this country. But that better kind of teacher and that larger expenditure are imperatively called for, if democratic institutions are to prosper, and to promote continuously the real welfare of the mass of the people. The standard of education should not

be set at the now attained or the now attainable. It is the privilege of public education to press toward a mark remote.

From the total training during childhood there should result in the child a taste for interesting and improving reading, which should direct and inspire its subsequent intellectual life. That schooling which results in this taste for good reading, however unsystematic or eccentric the schooling may have been, has achieved a main end of elementary education; and that schooling which does not result in implanting this permanent taste has failed. Guided and animated by this impulse to acquire knowledge and exercise his imagination through reading, the individual will continue to educate himself all through life. Without that deep-rooted impulsion he will soon cease to draw on the accumulated wisdom of the past and the new resources of the present, and, as he grows older, he will live in a mental atmosphere which is always growing thinner and emptier. Do we not all know many people who seem to live in a mental vacuum —to whom, indeed, we have great difficulty in attributing immortality, because they apparently have so little life except that of the body? Fifteen minutes a day of good reading would have given any one of this multitude a really human life. The uplifting of the democratic masses depends on this implanting at school of the taste for good reading.

Another important function of the public school in a democracy is the discovery and development of the gift or capacity of each individual child.

This discovery should be made at the earliest practicable age, and, once made, should always influence, and sometimes determine, the education of the individual. It is for the interest of society to make the most of every useful gift or faculty which any member may fortunately possess; and it is one of the main advantages of fluent and mobile democratic society that it is more likely than any other society to secure the fruition of individual capacities. To make the most of any individual's peculiar power, it is important to discover it early, and then train it continuously and assiduously. It is wonderful what apparently small personal gifts may become the means of conspicuous service or achievement, if only they get discovered, trained, and applied. A quick eye for shades of color enables a blacksmith to earn double wages in sharpening drills for quarrymen. A delicate sense of touch makes the fortune of a wool-buyer. An extraordinarily perceptive forefinger gives a surgeon the advantage over all his competitors. A fine voice, with good elocution and a strong memory for faces and parliamentary rules, may give striking political success to a man otherwise not remarkable. In the ideal democratic school no two children would follow the same course of study or have the same tasks, except that they would all need to learn the use of the elementary tools of education—reading, writing, and ciphering. The different children would hardly have any identical needs. There might be a minimum standard of attainment in every branch of study, but no maximum. The perception or discovery of the indi-

vidual gift or capacity would often be effected in the elementary school, but more generally in the secondary; and the making of these discoveries should be held one of the most important parts of the teacher's work. The vague desire for equality in a democracy has worked great mischief in democratic schools. There is no such thing as equality of gifts, or powers, or faculties, among either children or adults. On the contrary, there is the utmost diversity; and education and all the experience of life increase these diversities, because school, and the earning of a livelihood, and the reaction of the individual upon his surroundings, all tend strongly to magnify innate diversities. The pretended democratic school with an inflexible programme is fighting not only against nature, but against the interests of democratic society. Flexibility of programme should begin in the elementary school, years before the period of secondary education is reached. There should be some choice of subjects of study by ten years of age, and much variety by fifteen years of age. On the other hand, the programmes of elementary as well as of secondary schools should represent fairly the chief divisions of knowledge, namely, language and literature, mathematics, natural science, and history, besides drawing, manual work, and music. If school programmes fail to represent the main varieties of intellectual activity, they will not afford the means of discovering the individual gifts and tendencies of the pupils.

As an outcome of successful democratic education, certain habits of thought should be well es-

tablished in the minds of all the children before any of them are obliged to leave school in order to help in the support of the family. In some small field each child should acquire a capacity for exact observation, and as a natural result of this acquirement it should come to admire and respect exact observation in all fields. Again, in some small field it should acquire the capacity for exact description, and a respect for exact description in all fields. And, lastly, it should attain, within the limited range of its experience and observation, the power to draw a justly limited inference from observed facts. I need not say that this power of just inference is an admirable one, which many adults never attain as the combined result of their education in childhood and their experience in after life. Yet democratic institutions will not be safe until a great majority of the population can be trusted not only to observe accurately and state precisely the results of observation, but also to draw just inferences from those results. The masses of the people will always be liable to dangerous delusions so long as their schools fail to teach the difference between a true cause and an event preceding or accompanying a supposed effect. Thus, a year ago our nation came to the very brink of a terrible disaster because millions of our people thought the fall in the price of silver during the past twenty years was the cause of the fall in price of many other American products; whereas the prime cause of the general fall of prices, including the price of silver, was the immense improvement which has taken place since the Civil

War in the manufacture and distribution of mechanical power—an operating cause which, in the near future, is going to produce much more striking effects than it has yet produced.

Any one who has attained to the capacity for exact observation and exact description, and knows what it is to draw a correct inference from well-determined premises, will naturally acquire a respect for these powers when exhibited by others in fields unknown to him. Moreover, any one who has learned how hard it is to determine a fact, to state it accurately, and to draw from it the justly limited inference, will be sure that he himself cannot do these things, except in a very limited field. He will know that his own personal activity must be limited to a few subjects, if his capacity is to be really excellent in any. He will be sure that the too common belief that a Yankee can turn his hand to anything is a mischievous delusion. Having, as the result of his education, some vision of the great range of knowledge and capacity needed in the business of the world, he will respect the trained capacities which he sees developed in great diversity in other people. In short, he will come to respect and confide in the expert in every field of human activity. Confidence in experts, and willingness to employ them and abide by their decisions, are among the best signs of intelligence in an educated individual or an educated community; and in any democracy which is to thrive, this respect and confidence must be felt strongly by the majority of the population. In the conduct of private and corporation business in the United States the employ-

ment of experts is well recognized as the only rational and successful method. No one would think of building a bridge or a dam, or setting up a power-station or a cotton-mill, without relying absolutely upon the advice of intelligent experts. The democracy must learn, in governmental affairs, whether municipal, State, or national, to employ experts and abide by their decisions. Such complicated subjects as taxation, finance, and public works cannot be wisely managed by popular assemblies or their committees, or by executive officers who have no special acquaintance with these most difficult subjects. American experience during the last twenty years demonstrates that popular assemblies have become absolutely incapable of dealing wisely with any of these great subjects. A legislature or a Congress can indicate by legislation the object it wishes to attain; but to devise the means of attaining that object in taxation, currency, finance, or public works, and to expend the money appropriated by the constituted authorities for the object, must be functions of experts. Legislators and executives are changed so frequently, under the American system of local representation, that few gain anything that deserves to be called experience in legislation or administration; while the few who serve long terms are apt to be so absorbed in the routine work of carrying on the government and managing the party interests, that they have no time either for thorough research or for invention. Under present conditions, neither expert knowledge nor intellectual leadership can reasonably be expected of them. Democracies will not be

safe until the population has learned that governmental affairs must be conducted on the same principles on which successful private and corporate business is conducted; and therefore it should be one of the principal objects of democratic education so to train the minds of the children, that when they become adult they shall have within their own experience the grounds of respect for the attainments of experts in every branch of governmental, industrial, and social activity, and of confidence in their advice.

The next function of education in a democracy should be the firm planting in every child's mind of certain great truths which lie at the foundation of the democratic social theory. The first of these truths is the intimate dependence of each human individual on a multitude of other individuals, not in infancy alone, but at every moment of life—a dependence which increases with civilization and with the development of urban life. This sense of mutual dependence among multitudes of human beings can be brought home to children during school life so clearly and strongly that they will never lose it. By merely teaching children whence come their food, drink, clothing, and means of getting light and heat, and how these materials are supplied through the labors of many individuals of many races scattered all over the world, the school may illustrate and enforce this doctrine of intricate interdependence, which really underlies modern democracy—a doctrine never more clearly expressed than in these two Christian sentences: "No man liveth to himself," and "We are every one

members one of another." The dependence of every family, and indeed every person, on the habitual fidelity of mechanics, purveyors, railroad servants, cooks, and nurses can easily be brought home to children. Another mode of implanting this sentiment is to trace in history the obligations of the present generation to many former generations. These obligations can be easily pointed out in things material, such as highways, waterworks, fences, houses, and barns, and, in New England at least, the stone walls and piles of stone gathered from the arable fields by the patient labor of predecessors on the family farm. But it may also be exhibited to the pupils of secondary schools, and, in some measure, to the pupils of elementary schools, in the burdens and sufferings which former generations have borne for the establishment of freedom of conscience and of speech, and of toleration in religion, and for the development of the institutions of public justice. Of course history is full of examples of the violation of this fundamental democratic doctrine of mutual help. Indeed, history, as commonly written, consists chiefly in the story of hideous violations of this principle, such as wars and oppressions, and the selfish struggles of class against class, church against church, and nation against nation. But these violations, with the awful sufferings that follow from them, may be made to point and emphasize the truth of the fundamental doctrine; and unless the teaching of history in our public schools does this, it were better that the subject should not be taught at all.

Democratic education should also inculcate on

every child the essential unity of a democratic community, in spite of the endless diversities of function, capacity, and achievement among the individuals who compose the community. This is a doctrine kindred with that just mentioned, but not identical. It is a doctrine essential to diffused democratic contentment and self-respect, but materially different from the ordinary conception of equality of condition as a result of democracy; for unity is attainable, while equality of condition is unnatural and unattainable. The freedom and social mobility which characterize the democratic state permit, and indeed bring about, striking inequalities of condition; and if the surface of democratic society should be leveled off any day, inequalities would reappear on the morrow, unless individual freedom and social mobility should be destroyed. The children of a democratic society should, therefore, be taught at school, with the utmost explicitness, and with vivid illustrations, that inequalities of condition are a necessary result of freedom; but that through all inequalities should flow the constant sense of essential unity in aim and spirit. This unity in freedom is the social goal of democracy, the supreme good of all ranks of society, of the highest no less than of the lowest.

Another ethical principle which a democracy should teach to all its children is the familiar Christian doctrine that service rendered to others is the surest source of one's own satisfaction and happiness. This doctrine is a tap-root of private happiness among all classes and conditions of men; but in a democracy it is important to public hap-

piness and well-being. In a democracy the public functionary is not a master, but a trusted servant. By excellence of service he earns not only a pecuniary consideration, but also respect and gratitude. This statement applies just as well to a letter-carrier, a fireman, or a village selectman, as it does to a high-school teacher, a judge, or a governor. Democracy applies literally the precept, "If any man would be great among you, let him be your servant." The quality of this faithful service and its rewards should be carefully taught in school to all children of a democracy. The children should learn that the desire to be of great public service is the highest of all ambitions; and they should be shown in biography and in history how the men and women who, as martyrs, teachers, inventors, legislators, and judges, have rendered great service, have thereby won enduring gratitude and honor.

Since it is a fundamental object of a democracy to promote the happiness and well-being of the masses of the population, the democratic school should explicitly teach children to see and utilize the means of happiness which lie about them in the beauties and splendors of nature. The school should be a vehicle of daily enjoyment, and the teacher should be to the child a minister of joy. Democratic society has already learned how to provide itself—at least, in the more intelligent communities—with open grounds in cities, and parks in suburbs, and has in these ways begun to provide directly for the wholesome pleasures of the population. It should be a recognized function of the democratic school to teach the children and

their parents how to utilize all accessible means of innocent enjoyment.

Finally, the democratic school must teach its children what the democratic nobility is. The well-trained child will read in history and poetry about patricians, nobles, aristocrats, princes, kings, and emperors, some of them truly noble, but many vile; and he will also read with admiring sympathy of the loyalty and devotion which through all the centuries have been felt by generous men and women of humbler condition toward those of higher. He will see what immense virtues these personal loyalties have developed, even when the objects of loyalty have been unworthy; and he will ask himself, "What are to be the corresponding virtues in a democracy?" The answer is, Fidelity to all forms of duty which demand courage, self-denial, and zeal, and loyal devotion to the democratic ideals of freedom, serviceableness, unity, toleration, public justice, and public joyfulness. The children should learn that the democratic nobility exists, and must exist if democracy is to produce the highest types of character; but that it will consist only of men and women of noble character, produced under democratic conditions by the combined influences of fine inherited qualities, careful education, and rich experience. They should learn to admire and respect persons of this quality, and to support them, on occasion, in preference to the ignoble. They should learn that mere wealth has no passport to the democratic nobility, and that membership in it can be transmitted to children only through the transmission

of the sound mental and moral qualities which are its sole warrant. This membership should be the rightful ambition of parents for their children, and of children for their future selves. Every person of the true quality, no matter what his station or vocation, is admitted of right to this simple democratic nobility, which home, church, and school unite in recruiting; and there are, consequently, more real nobles under the democratic form of government than under any other.

1897

THE EVILS OF COLLEGE FOOTBALL

The game of football has become seriously injurious to rational academic life in American schools and colleges, and it is time that the public should understand and take into earnest consideration the objections to this game.

Some of the lesser objections to the game are its publicity, the large proportion of injuries among the players, the absorption of the undergraduate's mind in the subject for two months, and the disproportionate exaltation of the football hero in the college world. The crude and vociferous criticism, blame and praise which fall to the lot of the football player can be of no possible advantage to any young man at the opening of his active life; on the contrary, they keep before him an untrustworthy and unwholesome standard of public approval or disapproval.

Some danger attends almost all of the manly sports, and taking their risks makes part of the interest in them; but the risks of football are exaggerated and unreasonable. In a well managed college where men, physically unfit for football, are prevented from playing the game, the risk of death on the football field within four years is not so great as the risk in riding horseback, driving an

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automobile, or boating and yachting, if these sports are followed for years.

Nevertheless, many serious injuries occur, which are apparently recovered from, but which are likely to prove a handicap to the victim in later years.

The distraction from proper collegiate pursuits of multitudes of undergraduates during the football season has become a familiar phenomenon; but it is, nevertheless, a mortifying one.

The football hero is useful in a society of young men if he illustrates generous strength and leads a clean life; but his merits of body and mind are usually not of the most promising sort for future service out in the world.

The alert, nimble, tough, wiry body is for professional or business purposes in future life a better one than his; and the mental qualities of the big, brawny athlete are almost certain to be inferior to those of slighter, quicker witted men, whose moral ideals are at least as high as his.

The state of mental distrust and hostility between colleges, which all too frequently football creates, is one of these lesser evils.

The carrying into elaborate and highly artificial practice the enfeebling theory that no team can do its best except in the presence of hosts of applauding friends is still another of the lesser evils of football. Worse preparation for the real struggles and contests of life can hardly be imagined. The orator, advocate, preacher, surgeon, engineer, banker, tradesman, craftsman, admiral, general or statesman who cannot do his best except in the presence of

a sympathetic crowd, is distinctly a second-class man.

None of these things, however, enter into the main objection to the game, for the main objection lies against its moral quality.

As developed in this country under fierce intercollegiate competitions it has become a game in which the actions of the individual players can often be entirely concealed.

The game is played under established and recognized rules; but the uniform enforcement of these rules is impossible, and violations of the rules are in many respects highly profitable toward victory. Thus, coaching from the side-lines, off-side play, holding and disabling opponents by kneeing and kicking, and by heavy blows on the head, and particularly about the eyes, nose and jaw, are unquestionably profitable toward victory; and no means have been found of preventing these violations of rules by both coaches and players. Some players, to be sure, are never guilty of them, and some are only guilty when they lose their tempers, but others are habitually guilty of them.

The rules forbid unnecessary roughness in play, but there is wide latitude in the construction of unnecessary roughness. To strike a player with the clenched fist is unnecessary roughness; to give him a blow equally severe with the base of the open hand is not unnecessary roughness.

The common justification offered for these hateful conditions is that football is a fight, and that its strategy and ethics are those of war. One may, therefore, resort in football to every ruse, stratagem and deceit which would be justifiable in actual

fighting. They always try to discover the weakest man in the opponent's line, as, for example, the man most recently injured, and attack him again and again. If a man, by repeated blows about the head and particularly on the jaw, has been visibly dazed, he is the man to attack at the next onset. If in the last encounter a player has been obviously lamed in leg or arm or shoulder, the brunt of an early attack should fall on him. As a corollary to this principle, it is justifiable for a player, who is in good order, to pretend that he is seriously hurt, in order that he may draw the opponent's attack to the wrong place. These rules of action are all justifiable, even necessary, in the consummate savagery called war, in which the immediate object is to kill and disable as many of the enemy as possible. To surprise, ambuscade and deceive the enemy, and invariably to overwhelm a smaller force by a greater one, are the expected methods of war. But there is no justification for such methods in a manly game or sport between friends.

The general public that witnesses with delight these combats can seldom see or understand these concealed and subtle evils of the game. They witness with pleasurable excitement a combat which displays courage, fortitude, and a spirit of self-sacrificing coöperation in the players. The college public, adherents of the contending teams, is stirred profoundly by the sentiment of devotion to the institutions, because they believe that success in football is for the advantage of the institution. All parties welcome the chance to see a strenuous combat, as their ancestors have for unnumbered genera-

tions. The respectable people who attend football games—collegians, graduates and others—do not prefer to witness injuries, violations of rules, quarrels and penalties. On the contrary, they always prefer to see skilful, vigorous playing, uninterrupted by such repulsive incidents. The responsible heads of secondary schools do not wish to have their pupils taught by college athletes that skill in breaking the rules without being detected is essential to success in playing football. The average college player had much rather play fair than foul. The players have not devised nor enjoyed the stupid methods of training which impair the physical conditions of most of them before the important games take place. What then are the sources of the great evils in this sport? They are (1) The immoderate desire to win intercollegiate games; (2) The frequent collisions in masses which make foul play invisible; (3) The profit from violation of rules; (4) The misleading assimilation of the game of war as regards its strategy and ethics.

On the question whether or not football victories do, as a matter of fact, contribute to the growth and reputation of a college or university, there are evidently two opinions. But if a college or university is primarily a place for training men for honorable, generous and efficient service to the community at large, there ought not to be more than one opinion on the question whether a game, played under the actual conditions of football, and with the barbarous ethics of warfare, can be a useful element in the training of young men for such high service. The essential thing for the youth of

our colleges and universities to learn is the difference between practicing generously a liberal art and driving a trade or winning a fight no matter how. Civilization has long been in possession of much higher ethics than those of war, and experience has abundantly proved that the highest efficiency for service and the finest sort of courage in individual men may be accompanied by, and indeed spring from, unvarying generosity, gentleness and good will.

1905

THE CHARACTER OF THE SCIENTIFIC INVESTIGATOR

THE educated public needs to obtain a clearer idea than it now has of scientific research, of its objects and results, and of the character and capacity of the men who devote themselves to it. The educated classes have a tolerably accurate conception of research in such subjects as history including antiquities, economics, philology, law, and government; for research in these subjects relates chiefly to the past, remote or near. The public has also been long interested in the inventor's resourceful and persevering habit of mind—the inventor who is trying to make some new application of acquired knowledge, or to discover a new fact or principle which can be put to commercial use. But scientific research is somewhat different from these other kinds of research. It has deep roots in the past; but its object is never to demonstrate merely what has been done or said. Invariably its object is to extend the boundaries of knowledge, and to win new power over nature. It is not chiefly concerned to enlarge records of the past or to make them more accurate, but rather to use all the powers the past has conferred on the

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human spirit to win new power. The past gives the scientific investigator his lever and the present his fulcrum; but his work is to take effect on the future, and is to give him or his successors a stronger lever and a better placed fulcrum. As a rule scientific research is carried on with no public observation and as silently as nature elaborates and throws out the mantling verdure of spring; but on an exceptional occasion like this, and in a country which has already reaped great benefits from the endowment of institutions of education and charity by public-spirited persons, it is fitting that the beneficent work of the scientific investigator should be accurately described and commended to the favor of an enlightened public opinion.

Let us first consider what mental habits and powers the scientific investigator needs to have acquired and to keep in exercise, or in other words what sort of a mind the medical investigator ought to have. In the first place, he needs the faculty and the habit of determining and grasping facts, and then verifying and digesting them. He must next be capable of conceiving hypotheses which will connect his facts, or explanations that will group them or arrange them in a series. These hypotheses or explanations will come to him as results of reflection or of imaginative scheming; in the common phrase, ideas will occur to him. A preconceived idea may be a great power in experimental researches; but the inquirer must have the habit of pursuing to verification or disproof all such ideas. He must test them by new experiments contrived for that purpose. He must exhaust all the adverse

hypotheses which come to his mind. He must always keep in the road that leads to truth, although he does not know just where the truth lies. If, through the play of his imagination, he gets off the road, his rigorous experimentation must bring him back to the safe path of the inductive method. He must possess patience and reserve, but also enthusiasm and a capacity for eager speculation. Science has often profited by a suggestive theory which was far from being true. Indeed, the history of scientific progress is full of these profitable theories, which have been abandoned one after the other; and in all probability the series of such theories will prove to be infinite. Sometimes theories long forgotten are taken up again after the defeat of the later theories which caused the forgetting of the earlier. However it may be in theology, it is quite certain that in science there is as yet no such thing as final truth. Accordingly, investigators in any science need an unusual perspicacity or clear-sightedness in regard to its theories; they need, each in his own field, a full knowledge of the work already done, and a clear perception of the bearings of the most recent discoveries. This perspicacity is in some measure a natural gift; but it is also a faculty capable of a high degree of training. It sees clearly the approximate truth already discovered, and goes forward to obtain a closer approximation.

The characteristic features of scientific research are similar in all fields, although each kind has its peculiar difficulties. The field of the individual inquirer need not necessarily be wide; although the

progress of many sciences is often contributory to the progress of one, and that investigator has a great advantage who is capable of seeing clearly the bearings of new discoveries in kindred sciences on the particular inquiry he has in hand. It is all-important, however, in all fields, that the investigator should be capable of seizing on the essential parts of the inquiry—that is, on its causative elements, rather than on those parts which relate to identification, classification, and nomenclature. The pioneers of science, like the pioneers in exploration and colonization, must find their way through pathless regions. It is only later generations that build smooth roads and railways for the transportation of inattentive multitudes where the pioneer trod alone and watchful. The investigator must be watchful over minor details and for apparently insignificant differences and similitudes. He must know how to find his clews in trifling circumstances and illusive changes of condition. In these days of germs and spores, when micro-organisms have been proved to be infinitely important in the economy of nature, the investigator, and especially the biologist, will probably have a peculiar conception of the great and the small, or the gross and the minute. The infinitely little may often seem to him of highest importance, his scale of values having no connection with special magnitude or gravity. On the other hand, the investigator must be keen to discern relationships among facts—first among facts easily classed as kindred, but then among facts which to the common mind are unconnected or disconnected. The intellectual tastes of the true in-

vestigator will usually include a liking for an elucidation of mysteries and a liking for new and adventurous problems. These tastes are manifested by men whose walks of life and objects of interest are very different; but they are not common tastes, any more than the faculties needed in such inquiries are common. The scientific investigator wins pleasure or satisfaction where most men and women would find only vexation and futile effort. He finds fascinating what most men and women would find repellent.

After a new discovery has been made, another and quite different task awaits the successful investigator. He desires and needs to procure the acceptance of his discovery by the learned world, and in some cases by the commercial world. This is a process different from the process of discovery, and yet kindred. It involves inventing demonstrations; and these demonstrations require a somewhat different sort of imagining and contriving from that which led to the discovery. The discovery was made in private; the demonstrations must be public. The discovery needed solitary reflection; to procure the acceptance of the discovery needs a power of public exposition, accompanied by debate and even controversy. The discovery required indomitable patience and energy in pursuing and verifying in rapid succession the conceptions or fancies of genius; the demonstration requires skill in discussion, courage in accepting public tests, and in taking responsibility for risking the property or lives of others.

The history of scientific research amply illus-

trates the stimulating value of controversy, and the contribution which free discussion makes to real progress. Freedom of thought and speech promotes progress towards truth in science just as effectively as it does the gradual attainment of truth and justice in government, industries, and social structure. Time frequently shows that both sides were measurably right in honest scientific controversies, although one side win a temporary or even an ultimate victory.

The conditions under which research is necessarily performed deprive the investigators of the stimulus which numbers of students give to popular teachers. The laboratories of research contain but few students, and they are for the most part silent and absorbed. Nevertheless, the younger investigators have two great satisfactions in their work; they follow leaders with hearty enthusiasm and loyalty, and the generous ones among them also maintain a stimulating comradeship with contemporaries in the same fields. Their number is very small in all the contemporaneous fields of inquiry put together; but it is on this small number that the real progress of any nation in the arts and sciences, and therefore in civilization and happiness, ultimately depends. Their Herculean labors are self-imposed, and they must set their own standards of excellence; for society cannot supply men capable of supervising, regulating, or stimulating them. The ordinary grades of public instruction can be supervised and disciplined; but the scientific investigator must be a law unto himself. The utmost that governments or universities can do for him is to

provide suitable facilities and conditions for his work, and then watch for results.

Among the numerous varieties of scientific research such as chemical, physical, physiographical, astronomical, and biological, medical research occupies a peculiar place. While it avails itself to the utmost of all the exact weighings and measurings of the other natural sciences, it is forced to deal with innumerable materials and conditions which are complicated and made obscure by vital forces. It has to deal with objects which are alive and with processes of organic growth or change. Its evidences cannot always be exact; its experiments must often be complicated and obscured by vital reactions; and its results of highest value are often incapable of complete demonstration in the mathematical, physical or chemical sense, because dense shades of ignorance darken the environs of the practical result. Thus, preventive measures against a familiar and definite disease may succeed, while the promoting cause of the disease remains unknown, and the method of its transmission from one victim to another is but imperfectly understood. Vaccination succeeded when the cause or promoting condition of smallpox was unknown. The microbe of rabies is unknown; and yet protective inoculation against rabies has been invented and successfully applied. The mere mention of some of the contributory inventions and discoveries of the past fifty years, such as the principles of fermentation, artificial culture solutions, gelatine plate cultures, selective cultivation, the variety of sterilization conditions for different organic substances, staining

technique, immunity through the use of a toxic organism that can be cultivated, increasing or diminishing at pleasure the virulence of a toxic organism, and testing toxins and vaccines on living animals, will readily satisfy even a skeptical mind that medical research has great difficulties of its own to encounter in addition to the usual difficulty of scientific inquiry in general. Biological research is, therefore, more arduous than physical, chemical, or other inorganic research; because vital processes are difficult to observe accurately, and all the conditions of experimentation are harder to control. The medical investigator must often fish in troubled waters; and sometimes he cannot find again the promising fishing ground he has once visited, because unexpected fog prevents him from seeing the intersecting bearings of his desired ground.

Again, medical research habitually strives to arrive at something beyond abstract truth. It seeks to promote public and private safety and happiness, and the material welfare of society. Its devotees have in mind the discovery of means of remedying misery or warding off calamity; and they also know that whatever contributes to health and longevity in any community or nation contributes to its industrial prosperity; so that they are justified in hoping for results from their work which will promote human welfare. In short, medical research is research in science which is both pure and applied. Some genuine scientists affect to despise applied science; and certainly it is not discreditable to men of science that they are apt to value discoveries which

have no popular quality or commercial utility more highly than those which immediately attract the favor of the multitude by their industrial effects, or by their striking novelty combined with intelligibility; but all scientists recognize the fact that medical research is directly related to the largest material interests of the community, such as manufacturing, transportation, sanitation, and the methods of providing light, heat, and shelter, and of defending the community against frauds in foods, drinks and drugs. Many of these problems are economic as well as medical, and require in those who study them sound judgment in money matters as well as knowledge of natural law, and skill in scientific methods of inquiry. Medical research, therefore, requires in its devotees a combination of theoretical power with practical power —a capacity for both abstract science and applied science. This combination is rare, but by no means unattainable. Indeed, abstruse speculation is almost always attractive to masters of the experimental method. The investigator absolutely needs a powerful imagination; but this imagination must be checked by the most rigorous experimentation.

In spite of the fact that medical research involves the suffering and death of many of the lower animals used for purposes of study, the work of medical research is in reality the most humane work now done in the world; for its secondary objects are to prevent disease in men and animals, to defeat the foes of life, to prevent the industrial losses due to sickness and untimely death among men and domestic animals, and to lessen the anxieties, terrors,

and actual calamities which impair or crush out human happiness. The primary object in medical research, as indeed in all research, is the ascertaining of truth; but these secondary objects are ever before the mind of the investigator, and through them come his greatest satisfactions. These satisfactions ought to be shared by men who, like the founder of this Institute, promote medical research by the exercise of their sound judgment and good will and by their money.

The achievements of medical research since Jenner have been marvelous. Seeing what has been done within a century to diminish the mental and bodily sufferings of mankind from smallpox, diphtheria, rabies, tuberculosis, malaria, yellow fever, puerperal fever, and typhoid fever, and to give surgery safe access to every part of the body, we may reasonably believe that equal triumphs, and even greater, await it in the future. May we not hope that America will contribute her full share to the progress of scientific research, finding no obstacle, but rather means of furtherance, in her democratic institutions? May not we democrats find encouragement in the humble origin of Franklin, Faraday, and Pasteur, and in the contributions democratic America has already made to anæsthesia, surgery, the improvement of public water-supplies, and the control of Texan fever, malaria, and yellow fever? May we not reasonably expect our country to produce many men like Louis Pasteur's father, a private soldier of the first Empire and a hard-working tanner? In the dedication of his best book the great Pasteur said to his father: "The efforts I

have devoted to these investigations and their predecessors are the fruit of thy example and thy counsel." Let American parents take that sentence to heart. And let all Americans reflect on another utterance of this greatest of contributors to medical science, this ardent patriot, this independent and indomitable worker, this genuine democrat—Pasteur:—"The true democracy is that which permits each individual to put forth his maximum of effort."

1906

THE ELECTIVE SYSTEM

GREAT changes have come over the American college and university during the last forty years. The greatest change is the general introduction in larger or smaller measure of the elective system; and the next in importance is the change in methods of instruction. The present chapter deals with the nature, objects, and results of the elective system, and the following chapter with methods of instruction.

In the first place, the elective system is a system, —that is, a carefully arranged scheme of numerous courses of instruction which are open to the choice of students under rules partly artificial, but chiefly natural and inevitable. The elective system has been described by its opponents as a wide-open, miscellaneous bazaar, at which a bewildering variety of goods is offered to the purchaser, who is left without guidance, and acts without any constant or sensible motive. Nothing could be farther from the facts than this description. An elective system presupposes a well-ordered series of consecutive courses in each large subject of instruction, such as Latin, German, history, or physics. The division of the courses of instruction into groups by subject is natural and easily intelligible. Within these groups the series of subjects is natural and plain,

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except for the unexplained gaps which often occur in the series,—gaps due to the inadequacy of the institution's resources.

In a strong university the subjects of instruction taken together ought to cover all fields of human knowledge in which it is possible to give systematic instruction; and in each subject the schedule of courses should be in the highest degree orderly and consecutive, rising from the elementary, comprehensive course, through courses of greater and greater difficulty, becoming more and more intensive until the summit is reached in the conferences or seminaries which take advanced students to the limits of knowledge in that subject. It is obvious that a university which undertakes thus to deal with all subjects of knowledge must offer a very large total of different courses, and that in a certain sense, therefore, the choice of the individual student has a large range; but it is equally obvious that in the list or schedule of courses in a given division or department of knowledge the choice of the individual student has strenuous limitations. Thus, the beginner must take the elementary course first, and he must then advance through the long schedule of the department by well-marked steps. He cannot choose an advanced course in any subject until he has laid the necessary foundation. No student is admitted to any course unless he has fulfilled all the requirements for that course, and the department announcements contain numerous prescriptions concerning the sequence of courses. He cannot take two courses which occur in the time-tables at the same hour; and the time-tables may be

systematically used to prevent unwise combinations of courses. In well-conducted institutions he cannot take an advanced course without the consent of the instructor, who must be satisfied that the student is well prepared to do the work which the instructor habitually demands. The elective system, then, is extensive and complex, but it is also orderly, well mapped, and thoroughly regulated.

The primary object of the elective system is to enable the serious student to select his studies in accordance with his tastes and capacities. He is enabled to select those studies which interest him, or those teachers who interest him, with the result that he works much harder than he would on subjects which do not interest him, makes more rapid progress, and arrives sooner at the satisfactory stage of real intellectual achievement. Any human being, whether child or adult, whether hand-worker or brain-worker, will always work harder and accomplish more in a task which interests him. The first effect, therefore, of the elective system on the individual student who has intellectual ambition is always to get more work from him. It also makes him sooner a productive person, that is, a contributor to the sum of knowledge. This is the primary object of the elective system,—to make the serious student work hard, accomplish something worth while, and so win power and happiness. The complete development of the elective system takes place in the later years of instruction in arts and sciences, that is, in the school commonly called the Graduate School, because at the time of its institution it was the only school in the American university for ad-

mission to which a previous degree was required. Here the elective system has full scope, although the individual student in the Graduate School ordinarily chooses nothing but his line of work. On that line the steps of his progress are laid out for him; and his will coöperates in the limitations, for the intense specialization he desires prescribes the limitations.

But how is it with the college student who is not serious? There are such in most American colleges, although they form a much smaller proportion of the whole body than uneducated people generally believe. What use will he make of the broad range of optional subjects? What is the object of an elective system for him? He will tend to avoid advanced study, and make his selection therefore among the more elementary courses, in the hope that they will prove easier than the advanced courses, or more level to his intelligence. Among the elementary courses he will undoubtedly choose those which present most interest to his unawakened mind, and he will also diligently inquire for the inexperienced, less strict, or more softhearted instructors, in the hope that his shortcomings may by such men be gently dealt with. He will also study the time-tables, and avoid courses which are scheduled for too early morning hours or too late afternoon hours. In general he will select the courses which seem to him safest with a view to timely graduation, and to this end he will seek the advice of older students of his sort.

What will be the result of this mode of selecting his studies by a student without any intellectual am-

bition? His total course, or total selection of courses, will probably resemble the old prescribed course in the American college, that is, it will remain in the elements of all subjects; it will continue in college some of the subjects studied at school, because those are the subjects in which the youth has some acquired capital; and it will contain a greater variety of subjects than any ambitious student will include in his programme. It will be what is ordinarily called an "all-round" course. It will, however, be a course which will procure from the chooser more work than such a person would ever have done under a prescribed system; because in some degree it is selected on the ground of the mental interests of the individual, or on the ground of the attractive and influential personality of some teacher or teachers.

It would be difficult to overestimate the value of an elective system for the lowest quarter of a college class. It not only gets much more work out of that quarter, but also offers them their only chance of experiencing an intellectual awakening while in college. By following, though almost unconsciously, their natural bent, such young men have the best chance of developing some power of application, and some desire for intellectual achievement. The object of the elective system for a student disposed to follow the line of least resistance is to give him a chance to get roused from his childish state of mind and will, and to feel stirring within him the motives of a considerate and fore-looking adult.

There is another class of students to whom an

elective method is a great blessing, namely, the late-developing young men, and the young men whose minds are not quickened by any of the subjects usually taught in secondary schools. The old prescribed college curriculum, which was in the main a continuation of school subjects, rarely offered these men any new advantages or opportunities; but the wide-ranging elective system may easily give them entrance to fields in which they have some chance to excel. Here, again, an elective system brings opportunity, and with it inspiration and hope.

It is another object of a broad elective system to mix the students of the different college classes together, and to mix graduates with undergraduates in the same course. Because of the great number of elective courses offered at any good college, it is quite impossible for any single student to pursue more than an insignificant fraction of them during his total residence at the college. It may easily be the interest of a student belonging to a higher college class to pursue with members of a lower class an elective course which he has not previously taken. Moreover, a graduate of the same college, or of some other college, may desire to take up, after he has obtained his first degree, some studies which he did not have time to enter upon during his college course, or had not felt the need of pursuing. In consequence, almost every course of instruction largely resorted to in colleges where the elective system is broad contains graduates, members of all the college classes, and special students all mixed together. When a scientific school makes part of the institution, some of the scientific courses will also

be resorted to simultaneously by members of all the different classes. This mixing of students of different ages, and different academic status, is an unqualified advantage; provided that all are united in a common purpose to master the course they are attending together. The younger student from a lower class is stimulated by the older men with whom he associates, and if all the attendants are qualified to pursue the study to advantage, the older men suffer no harm.

When the Graduate School of Arts and Sciences was first established in Harvard University, in the spring of 1872, the adoption of rules determining the period of residence and the examinations for the higher degrees was accompanied by a vote opening all the elective courses of instruction in Harvard College to Bachelors of Arts of Harvard College, and of all other colleges. The reason for this vote was that no undergraduate during his four years' course could take more than a fifth part of the instruction the College then offered; so that the student who had just received his Bachelor's degree might well find at least a year's work among those college electives which he could not pursue while an undergraduate. What was true of Harvard Bachelors of Arts was still more likely to be true of the recent graduates of other colleges.

Thirty years later, the number of courses of instruction offered in Harvard College and the Graduate School had greatly increased; so that the correctness of the principle laid down by anticipation in 1872 has been abundantly demonstrated. Graduate and undergraduate students are to be

found together in scores of the courses of instruction now offered by Harvard University, although there are also many advanced courses in which none but graduates appear. This grouping of older and younger students by subject is one distinct object of the elective system, although a subordinate one.

The grouping of students of various ages and various academic standing by their subjects of study has certain valuable social effects. It leads to intercourse among students based on like tastes and intellectual interests, particularly in elective courses which are chosen by a moderate or a small number of students. There is no better starting-point for a college friendship than sympathy in an intellectual pursuit, or than a common devotion to an interesting subject or an interesting teacher.

An excellent effect of the election of his own studies by each individual student is the added sense of responsibility which this freedom gives. A prescribed course alike for all leaves no freedom to the student in his studies, and imposes on him no responsibility. Here, as everywhere else, it is only under a régime of liberty that the individual can acquire the capacity for self-direction and self-control, and the sense of responsibility for his own conduct. A college in which a good elective system prevails furnishes instruction in great variety, offers guidance and aid in the daily work of the student, and holds rigid examinations; but it throws the responsibility of selecting his fields of work on the student himself. Experience has shown that young Americans of the college age possess as a rule the intelligence and character to win mental and moral

profit from this responsibility. To provide the occasion and the means for this great profit is one important object of an elective system.

It is perhaps unnecessary in these days to meet the unenlightened criticism which used to be made on the elective system, namely, that choice of studies for college youths must mean the gratification of a desire not to study at all. Experience has demonstrated that there is no foundation for this apprehension. An elective system does not mean liberty to do nothing. It allows every student to choose his subjects of study; but the amount of his work remains prescribed, and its quality is tested by means of periodical examinations, essays, laboratory work, and frequent conferences between teacher and student. Under a well-administered elective system not only is a minimum of attainment prescribed, but there are numerous competitive inducements to strenuous study. As a method in education it has emphatically a moral as well as an intellectual end.

It is important to discriminate between the fundamental principle of freedom of choice and the administrative methods which exact from each student a reasonable amount of work, and estimate the quality of that work. The main principle being settled once for all, the administrative methods will be capable of indefinite improvement. Under election, as under prescription, it is an altogether separate question whether or not a college chooses to retain within its walls young men who do no work, or who will work only in their plays. Under an elective system, quite as well as under a prescribed

system, a college may say that it does not care to keep young men who do not reach a certain minimum of attainment. That is a question of discipline, altogether apart from the question whether studies should be elective or prescribed. A college with a wide range of elective studies may easily be the strictest of colleges with regard to the minimum attainment of its students. Six long-service teachers in Harvard College between 1850 and 1900 had close observation of the minimum attainment of students in Harvard College between the years 1849 and 1869 under a system almost completely prescribed; and since 1880 a prolonged period of observation of the minimum attainment of Harvard undergraduates under a system almost completely elective. Comparing the two minima, they all agreed that the latter minimum was unquestionably much higher than the former. This result, however, was obtained by applying during the later period to indifferent, lazy, and incompetent students a stricter supervision than was exercised over students from forty to sixty years ago. It is one of the great advantages of the elective system that the intelligent, self-directing, responsible student can have all the advantages of freedom, while the irresponsible, thoughtless, or lazy student can be made to do some work, without driving him into studies for which he has no capacity and in which he feels no interest. The free choice of studies can prevail under a variety of disciplinary policies; it is compatible with a severe exclusion of idlers and dullards.

It is time to consider briefly some of the limits and bounds of the elective system. It is only in the Department of Arts and Sciences that an elective system has wide application. As soon as a young man has chosen his profession, his series of studies is prescribed to him in large measure. Every student in a professional school has, of course, chosen his profession and marked out his life-work; but it is only a small proportion of college students who know from the start what calling they are to follow. Many of the professions are now divided into specialties, each of which involves a peculiar training. Accordingly, in good professional schools there is a moderate application of the elective principle, designed to enable young men to prepare for specialties in their profession. Thus, in engineering a young man may be sure that he is destined to be a mechanical, a civil, or an electrical engineer; and his professional studies may wisely be determined in some measure by the foreknowledge of this specialty. In a medical school, in the latter part of the course, the students ought to have a moderate range of elective studies, in order that they may begin while in the school the preparation for medical specialties.

In general, a college student who knows what his profession is to be will ordinarily find that some of his college studies are practically prescribed for him, because he feels the force of the advice to take certain preliminary studies. Thus, the young man destined to engineering will inevitably choose a large amount of mathematics and physics during his college course; and a young man who is des-

tined for medicine will, if he follow good advice, study chemistry, physics, biology, French, and German on the way to his A.B. or S.B. The student who has no clue to the profession he is to follow will be guided in his selection of college studies, if he is wise, by his individual tastes, inclinations, and capacities. If he follows this guidance, it will probably turn out, when he chooses his profession, that he has already taken in college subjects related to his future professional work; for the wise choice of the profession will be based upon the same consideration of his tastes and powers which determined his choice of college studies. In both kinds of choice, the wise chooser will rely on the same sort of guidance.

In a well-managed college competent advice is always offered to the newcomer in planning his own schedule of studies; but the main function of the adviser will be to interpret the printed announcements, time-tables, and regulations, and to show him how to lay out his own course with due regard to the fences of the elective system. Thus, for young men who have no purpose to be students, the minimum requirements for the degree afford guidance which they can disregard only at considerable peril. For ambitious young men, the rules about degrees with distinction give clear and acceptable guidance. The rules for obtaining honors at graduation also afford guidance for students who desire to make a judicious specialization in their studies.

An example of this sort of guidance may be found in rules about Honors in Literature in Harvard College. The requirements are as follows:

A good reading knowledge of at least two languages, one ancient, one modern; an amount of reading in at least two literatures, one ancient, one modern, which shall be satisfactory to the Committee on Honors in Literature; an acquaintance with the general history of two literatures, one ancient, one modern, to be tested by an examination; a thorough study of two special subjects from two different literatures, one ancient, one modern. Such rules as these will give good guidance to any real student throughout his entire college course, not only in the selection of individual courses, but in the grouping of those he selects.

The largest effect of the elective system is that it makes scholarship possible, not only among undergraduates, but among graduate students and college teachers. While college curricula were prescribed, and therefore dealt almost entirely with the elements of the subjects taught, there was little in the work of a college teacher which stimulated him to broad and deep intellectual attainments. His college work became an absolute routine. Outside of the college he perhaps gave popular lectures, or compiled school and college text-books, or preached, if a minister, as he often was. He but seldom became an advanced student or investigator; and when in rare cases he did become a real scholar, it was by force of innate genius impelling him to advanced work under most unfavorable conditions.

Since the elective system became the general practice of the American colleges and universities, so far as their resources have permitted, the whole

aspect of the profession of teaching in the higher institutions of learning has changed. Even the young teachers have received each a competent training in some specialty, while the assistant professors and professors are always chosen from men who have demonstrated their capacity for persistent, productive, scholarly work. A successful professor is an enthusiastic student, an inspiring teacher, and an indefatigable investigator. In all departments of scholarly work, such as modern languages, classics, oriental languages and literatures, history, economics, botany, and zoölogy, there now exist societies or associations which bring together statedly scholars in these specialties from all the universities and scientific establishments of the country. Fifty years ago, these societies for specialists were unknown. They are now numerous, and their number and strength mark the arrival of the American scholar, not as an accidental product outside of the teaching profession, but as a well-equipped professional man, systematically produced in and for the higher institutions of education.

It is difficult for the present generation to imagine the condition of the American colleges when there was no instruction given in any of them beyond the elementary courses in the few arts and sciences which led to the A.B. With few and narrow exceptions, no instruction in arts and sciences that could possibly be called advanced, was given in the American colleges before the Civil War. Down to 1872 there was no systematic provision made at Harvard University for instruction in arts and sciences beyond the Senior year of the College.

If any young man wanted to pursue the study of literature, history, philosophy, or science beyond the limit set by the requirements for the degree of Bachelor of Arts, he had to go to Europe. No other gain from the elective system can be compared with this development of scholarship in the United States.

In any college or university which undertakes to present a series of graded courses in all the common subjects of knowledge, election of studies in some large measure by the individual student, or selection for him, is absolutely inevitable; for no single student can take in three or four years more than a small fraction of the instruction in the liberal arts offered at such an institution. But if election by the individual with the natural aids works well in practice, it is of course to be preferred to any method of selection for the individual by an authority outside himself, since freemen are best trained by practice in freedom with responsibility. Now, the experience of forty years in a great variety of American institutions has proved that election by the individual works well, wherever the administrative methods which should accompany such an elective system have been well devised and well executed. Hence, the system is not only inevitable, but in the highest degree expedient and profitable.

Inasmuch as Harvard University has a wider elective system than any other American institution, and has devised successful administrative methods in connection with the system, it is fair to use the experience there obtained as evidence of the superiority of election by the student over selection

for the student by faculty, administrative board, dean, or other authority. The results obtained at Harvard University may be conveniently discussed under six heads.

(1) The elective system permits the student to concentrate his work upon the subjects in which his capacity is greatest, and so to make rewarding progress in his chosen lines of study. This freedom for the student to specialize has the great incidental advantage of developing the advanced instruction in college, and such a development, limited only by the pecuniary resources of the institution, will result from every well-administered elective system, and cannot be obtained so promptly and completely under any other system. This specialization might conceivably be extreme, or too common, under free election. Has it proved so? Not at Harvard College. The ordinary college student does not wish to specialize to an extreme. The number of students in advanced courses at Harvard is small in all departments. The great body of the undergraduates frequent the elementary courses in languages, mathematics, history, philosophy, economics, government, and the natural sciences, wishing to obtain initiatory surveys of many fields rather than a detailed knowledge of one. Twenty years ago, it was demonstrated that not more than 8 per cent. of the undergraduates in Harvard College wished to specialize their work to any high degree, and all subsequent experience tends the same way. It is only in the Graduate School of Arts and Sciences that any large percentage of the students tend to a high degree of specialization; and of course in such a

school of mature students, specialization is wholly desirable.

(2) What does the experience at Harvard College show with regard to the wisdom of the choices made by students as regards continuity of study, or persistence in the same or kindred studies, from year to year? Critics of the elective system have often assumed that free choice of studies would generally result in a capricious selection of heterogeneous, elementary studies for trivial motives. This criticism is founded, not on observation of the actual facts, but on a presupposition as to what American youth would be likely to do. What occurs may now be plainly seen by any competent person who will patiently examine the records of the students' choices at Harvard College during the last thirty-five years. Careful inspection of the records will satisfy any candid mind that the elective system does not produce the evil imagined; but, on the contrary, results in almost all cases in consistent plans of individual study throughout the college course. Inconsecutive or aimless selections are hard to find. More than twenty years ago, three experts, all familiar with the relations and sequences of the courses of instruction given during the period of 1881 to 1885, carefully examined the entire series of three hundred and fifty choices made by the students of that time, being the entire classes of 1884 and 1885 in Harvard College. They endeavored, independently of each other, to pick out those selections which, in their judgment, lacked coherency or consecutiveness. These three agreed upon only six cases of incoherence—three in

the class of '84, and three in the class of '85. Two out of the three experts—but not the same two in every instance—agreed on twenty-one cases within the two classes. When three experts cannot agree that a given selection of studies lacks coherency, it may well be that knowledge of the circumstances and conditions under which the individual selection was made would fully explain or indeed justify it. The general result of this particular examination was that incoherent choices were very few, and that the intelligence in selection was nearly as great in the lower half of a class as in the upper. This verdict would stand unchanged to-day, except that the recent gross exaggeration of athletic sports has added slightly to the number of incoherent or wrong-motived elections of studies.

When thousands of young men thus make for themselves judicious and coherent selections of lines of study which run through three or four years, it is plain that there must be some guiding principles, or demarcations, natural or artificial, which avail to make free choice judicious in the main, and particularly to make it coherent. A just appreciation of these guiding principles is absolutely necessary to an understanding of the elective system. The purely natural guides are obvious and authoritative. The most thoughtless youth cannot help taking up a new subject at the beginning, and not in the middle. If he would continue a study which he has already pursued, he must take it up again at the point where he left off. He soon discovers that many subjects taught at a university cannot be advantageously studied without a previous knowledge

of some other subject, or subjects. He perceives that every advanced course presupposes acquaintance with some elementary course, or courses, in the same department. He obeys the natural tendency to pursue a congenial subject, once entered on. To be sure, in order to render these natural guides effective, the Faculty must supply full information about the inevitable sequence of studies in each department, and the mutual dependence of related courses. The giving of this information in clear and compact form is an important part of the administrative regulation which must accompany any successful elective system.

Students who, while in college, discover what their future profession is to be, have another natural guide through the intricacies of a wide elective system. They can, and do, select those college subjects which afford the best foundation for their future professional studies. It has already been pointed out that the rules concerning honors and degrees with distinction give a certain amount of artificial guidance towards effective groups of studies.

(3) It has been supposed that American students, when allowed to choose their studies, would simply inquire for the easiest courses, and take them. Such critics point to the courses which are selected by large numbers of students in any college with a wide elective system, and say these largely attended courses are all elementary, therefore they must be easy, and they are chosen because they are easy. Neither part of this proposition is founded on fact. The elementary courses in a well-conducted college ought to be as well taught as any

others, and ought not to be easy in any proper sense. They are chosen by large numbers because they relate to subjects concerning which almost all students want to know something. They represent in part the courses which used to make up the old prescribed curriculum in the American colleges, only they are now taught in a much more interesting and effective manner. They deal, indeed, with the inevitable subjects of the less advanced courses under any conceivable college system, prescribed or elective. In the languages and mathematics these courses carry on instruction from the more elementary stages already reached at school; in philosophy, political economy, history, and the natural sciences they are the necessary courses for beginners, that is, they are only gates to the more advanced courses. They treat of topics full of interest for the general mass of the students. They are selected by college students who wish to carry on the studies they have previously pursued, or to take up new subjects early in their college course in preparation for more advanced instruction in the later years. They are prudently selected by young men of limited capacity who cannot succeed in the more advanced courses. They also afford the most promising refuges for the few lazy students who exist, and will exist, under all college systems.

(4) In extending the elective system into secondary schools, and in introducing it into some colleges, a system called the group system has naturally come into use, because it is cheaper and easier to administer than a thoroughgoing elective

system. A considerable show of options for the individual may be made by grouping a moderate number of studies in several different ways. Thus in a high school, nine or ten groups, bearing as many different names, can easily be made with from twenty to thirty different studies during a total school course of four years. Certain studies will appear in all the groups, though in varying proportions, while other studies will appear only in three or four groups, and others in only one or two. This is an economical mode of producing an effect of large variety. There are, however, serious objections to the group system in schools, and still more in colleges. When, under a free elective system like that of Harvard, individuals exercise freely their spontaneous diversity of choice, it will appear in the end that no two individuals follow the same path through a course of four years. Out of hundreds or thousands of four-year selections, no two will be found to be exactly alike. This diversity corresponds to the infinite diversity of mind and character in the choosers. No two minds will spontaneously elect the same studies in the same proportions and in the same sequence. Minds left in freedom do not fall into nine or ten categories, or fit into artificial groups of studies arbitrarily compounded by some other mind. It is, moreover, quite unnecessary for some authority to prescribe these arbitrary groups of studies, inasmuch as all desirable concentration and continuity of work can be secured without doing such violence to liberty of choice. The group system is also objectionable because it commits a schoolboy of fourteen, or a

college student of eighteen, to a set of studies from which he will find it difficult to escape later in his course, however much he may wish to. There is no need of this early committal, either in high school or college. To impose upon a boy for several years an ill-fitting group of studies from which he can hardly extricate himself, is a much more serious matter than to allow him to choose amiss one or two studies which he can easily replace.

Again, the group system does not give every teacher the precious privilege enjoyed under a system of free election, the privilege of having no student in his class who has not chosen to be there. The group system forces a student who desires to study some of the subjects which compose a group to take the rest, in which he may have no such interest, and consequently it compels teachers to receive reluctant pupils.

Lastly, the group system, if enforced, compels specialization in studies, a kind of compulsion which is peculiarly unwarrantable. If the student be permitted to cut across the groups—as often happens in practice—and so to make up his own course of study, the avowed objects of the group system will be defeated, and the school or college might as well have a free elective system within the limits which its resources impose. In short, the group system is only to be recommended as a temporary makeshift, while resources are narrow, or the raw material of a school or college is crude.

(5) An elective system leads to a great increase of intercourse between teachers and students for intellectual objects, and of spontaneous association

for the same objects among the students. Conferences, clubs, and societies are maintained by young men who find themselves associated in the pursuit of the same, or kindred, studies, for the discussion of subjects connected with these studies. The pleasure and profit derived from these societies or clubs are much enhanced by the variety of studies and intellectual interests found among the members of each society, alongside of the common study; for to the benefits and delights of intellectual companionship diversity of gifts and acquisitions contributes quite as much as community of interests. Every small elective course, every laboratory course, and every seminary or conference at Harvard is a focus of common intellectual interests, and the occasion of profitable personal relations between teachers and students.

(6) It has been a common criticism of the elective system that inasmuch as no two candidates for the degree of Bachelor of Arts will have pursued the same studies in the same proportions, the degree itself cannot have a definite, constant signification alike for all its recipients. Fortunately, it is quite true that the degree of Bachelor of Arts in the United States no longer means that the young men and women who hold it have passed through the same course of studies. Nevertheless, the possession of this degree testifies that the holder has enjoyed certain valuable privileges, and made certain definite attainments. All Bachelors of Arts have spent from seven to ten years somewhere between the ages of thirteen and twenty-three in studies properly called liberal. At school they have all

learnt the elements of Latin, and of some modern language besides English, the elements of mathematics, a little ancient history, and something of English literature; and in some foreign language, and in mathematics, they went somewhat beyond the bare elements. At Harvard College they have further spent three or four years upon a prescribed quantity of liberal studies,—all studies being accounted liberal which are pursued in the scientific spirit for truth's sake, and as means of intellectual discipline. The degree of Bachelor of Arts therefore remains the common goal of liberal study pursued through many years. In many institutions the degree of Bachelor of Science or Bachelor of Philosophy has a similar signification, except that the terms of admission to the course of study which leads to this degree have generally been lower than those to the course which leads to the degree of Bachelor of Arts.

The objection—if it be an objection—that the A.B. has no definite and uniform signification applies with much more force to the higher degrees of Master of Arts or Science and Doctor of Philosophy or Science. No one of these degrees has any definite signification in regard to subjects of study or specific achievements.

It will now be obvious that the advantages of an elective system in a college cannot be reaped, unless choice of studies is wide open to the student for at least three years. Any college which keeps the curricula for the Freshman and Sophomore years mainly prescribed, and allows free election only in the Junior and Senior years, must fail to train ad-

vanced students except in those subjects which are well pursued for long periods in secondary schools as well as in colleges; as, for instance, in Latin, Greek, mathematics, English, and history. A college student in any single department like chemistry, zoölogy, philosophy, or economics, who begins his study of that subject not far from its elements, must, nevertheless, follow a sequence of courses through the successive half-years of his college course. Thus, for example, he cannot attack the subject of quantitative analysis until he has studied general chemistry and qualitative analysis. For developing this sequence properly, he needs several half-years. If he has but two years in all to give to the subject, a proper sequence will not bring him near the top of his subject.

In the period from 1870 to 1890—the period of the rapid development of the elective system at Harvard College—a long time elapsed before the faculty thought it possible to admit Freshmen to the elementary classes in economics and philosophy. Freshmen were not considered mature enough for these studies. Accordingly, the students who were attracted towards these subjects found themselves compelled to begin them in the Sophomore or even in the Junior year. Yet the advanced courses could not be attacked until the long elementary course had been mastered. Experience of the difficulty of producing advanced students of these subjects under such conditions within the period of college residence, finally led the faculty to risk abandoning its theory that a young American of nineteen was not prepared to grapple with either of these subjects.

By trial they made the encouraging discovery that some Freshmen are more mature than some Seniors. In general, an elective system limited to two years will fail to develop advanced teachers, as well as advanced students, unless, indeed, they can expand and continue their college teachings in a graduate school. Nothing can replace for a teacher the inspiration and incitement of training a few genuine advanced students, who become his devoted disciples and the diffusers of his doctrines. The attention of faculties and the public has been too often concentrated on the effects of the elective system on young students; whereas its effects on teachers, and on the development of real scholarship throughout the country, ought to have received more attention; for it is there that its effects have been the most beneficent.

The expediency, and even necessity, of a broad elective system in colleges will be seen clearly by all those who consider the great variety of professional studies for which a modern college prepares its graduates. In a properly constituted university, all the professional schools will prescribe for admission a preliminary degree, such, for instance, as the degree of Bachelor of Arts or Bachelor of Science. Now these university professional schools divide among them the whole field of knowledge, each taking so large a region that further subdivision becomes necessary in order to meet the wants of the young men who purpose to practice professional specialties. It is perfectly understood that under each professional course of study lie certain college studies which are peculiarly appropriate to

that professional course,—as, for instance, mathematics and physics in preparation for a professional course in engineering; chemistry, physics, and biology as preliminary to the study of medicine; and Latin, Greek, Hebrew, and philosophy as preliminary to the appropriate studies of a divinity school. When, therefore, the American universities come to be properly organized, with their professional departments on top of their colleges and scientific schools, and are therefore closed to young men who have had no college or scientific school training, the expediency and necessity of free election of studies in college will be amply demonstrated.

Looking back on the development of the elective system in the American colleges and universities during the past thirty years, one sees that the rate of the development and the width of the resulting system in each case have been in the main a question of the pecuniary resources of the institution. There is no doubt that a prescribed system is indefinitely cheaper than an elective system; for with only one curriculum of elementary courses to provide, a college can get along with a comparatively small number of inferior teachers. A broad elective system requires many teachers of high quality; a prescribed curriculum needs only a few teachers, and those need not be advanced students or investigators. A professor who gives half his time to advanced work with classes of five to fifteen students is a far more costly article than a professor who deals only with classes of fifty to two hundred students. Nevertheless, the great increase in number and merit of the teaching staff in American

universities of late years is not all due to the development of the elective system. A significant part of the increased expense for salaries is due to the increased amount of individual instruction given to students by experts in their several subjects. It is unnecessary to say that although this increased cost has hindered many institutions in the process of developing a wide elective system, the money thus spent is the most productive of all educational expenditures.

Finally, the permanence of the elective system is assured by the demonstrated fact that it provides on a large scale an invaluable addition to human freedom, and provides this precious freedom for the most highly trained, and therefore the most productive and influential, persons. When the student of history reviews the great achievements of the human race, he comes to the conclusion that those achievements which have brought deliverance from some form of terror or oppression, or have been gains for some sort of freedom, have proved to be institutionally the most durable achievements,—one might almost say the only durable.

1908

THE HIGHER EDUCATION FOR WOMEN

THE future of the higher education for women seems likely to be somewhat different from its past. The quality of the resort to the separate colleges for women has changed, and the policies of those colleges are not what they were twenty-five years ago, while education has plainly declined.

We cannot tell much about the future, except as we study the past and the present; and therefore the first thing I want to do is to state as clearly as I can what seems to me to have been demonstrated during the last thirty-five years concerning the higher education of women in our country.

I remember very well the beginnings. I remember the doubts which accompanied those beginnings; doubts in some of which I shared. Three doubts at least—doubts in their nature important with regard to the immediate success of the higher education of women, and important, certainly, with regard to its future—seem to me to have been resolved; three distinct apprehensions concerning the effect of the higher education on women seem to me to have been removed.

In the first place, there was perfectly sincere doubt (because there was little experience to go upon) whether young women were so capable as

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young men of receiving what was then called the higher education; or, in other words, whether young women had the capacity to master by study the traditional subjects of the higher education. The doubt has been completely removed. We have proved by actual trial that young women can learn all the more difficult subjects of education just as well as young men; and there is some evidence to show that on the average they will cope with those subjects better than the average of young men. Some people think that is because young women are brighter; other people think it is because they are more conscientious and diligent. But whatever the reason, the fact has been established that young women can deal with college subjects just as well as young men can. That is a good deal to have learned in a single generation; and one advantage of having learned it is that the women's colleges need no longer copy absolutely the programmes of young men's colleges. Relief from that necessity ought to produce very favorable changes in women's colleges during the next twenty years.

It was a worthy motive which impelled the managers of women's colleges at first to copy abjectly the programmes for young men. The leaders wanted to prove just the thing that has been proved, namely, that young women were as good as young men for the traditional studies—for the men's order of studies and to their limits of studies. That having been proved, the women's colleges are now free to arrange an education for women which is specially adapted for the needs of women. I look forward, therefore, to an excellent progress of the

women's colleges of the United States in this respect during the next twenty years.

A second serious apprehension existed thirty-five years ago. It was feared, if young women studied in colleges three or four years, beginning at about eighteen years of age, that such study would have serious ill effect on their health and on their fitness for their natural functions in after life. This apprehension was felt by many physicians, and was warmly expressed. For a whole generation we have been trying the experiment, and the result is perfectly clear. Those apprehensions have not been justified. It is apparent that young women can do much mental work for three or four years between eighteen and twenty-two, not only without impairing their physical vigor, but all the time improving it, if they live wisely and under right conditions. That is a good deal to have learned in a single generation; but the record is made.

And thirdly, there was the strong apprehension felt by many excellent people, by many men who loved and venerated the women that had brought them up, that had lived with them, that had brought up their children, lest in this process of higher education young women would be denatured. They admitted that young men were not denatured in any way by the higher education at the college; but they thought there was a serious chance that young women would be altered in their nature, in their feminine nature, by this process of higher education. It has turned out that a young woman who studies in college from eighteen to twenty-two is no

more altered in her nature than a young man who goes through a similar process. It takes a great deal more than that to alter the nature of woman.

I suppose this apprehension was based upon the fact that women seem, at least to men, more tender, fragile, and delicate than men; and therefore more liable to be bruised or coarsened than men; it was feared that the kind of public life, so to speak, in large groups, would have some tendency to deprive them of their natural delicacy, refinement, and tenderness. It has not turned out so; and everybody recognizes that it has not turned out so. And here again is a considerable achievement for a single generation. A groundless fear has been dismissed.

And still Dr. Talcott Williams tells us that the professions have not been invaded by women, and that the occupations they have entered upon and the fields they have conquered were more or less unexpected occupations and fields; that the anticipations of the friends of the higher education of women have not been realized, any more than the apprehensions of its foes. Looking forward to the future, I shall venture to offer a partial explanation of the phenomena which have engaged Dr. Williams's attention. If we could say in regard to the education of young men that their education should always be directed to the one principal occupation which they were sure to engage in, we should simplify very much the education of young men. We cannot say that. When the college education of young men is over, they scatter into an enormous variety of occupations and pursuits; so that the higher education for young men has not the advan-

tage of preparing a great majority of them for a single calling. I submit that the higher education for young women ought to avail itself of that advantage. The great majority of women go out into the world to a single occupation. The married women bear and rear children; and a great many unmarried women bring up the children of others. So it results that the immense majority of women go into that one occupation.

Why has not that advantage been seized by the leaders in the higher education of women? Because that single occupation has not generally been regarded as an intellectual occupation. I venture to think that this is one of the greatest mistakes civilized men and women have committed. The one great occupation of women, lived up to, is the most intellectual occupation there is in the world for people by the million. It calls, and calls loudly, —and often in vain—for carefully trained mental powers, as well as great moral powers. Let me endeavor to justify my statement that this main occupation of women is in a high degree an intellectual one; and I do not confine my view to women fortunately placed, as the world thinks. I say that the normal occupation of women is an intellectual one in all walks of life; that in the lowest walks of life the work of the women, fairly done, is higher than the work of the corresponding men; and that the same ought to be true, and often is true, in the higher walks of life.

Think of the opportunities of applying all sorts of acquired knowledge that the mother of five or six children enjoys as she follows the development

of these children up to twenty or twenty-five years of age! That experience is a wonderful training for the mother herself. Ordinarily it is the mother, rather than the father, that trains the children; and this training goes on for twenty years or more, and takes effect upon a group of children ordinarily very unlike in capacities, powers, and dispositions. The group calls for all the mother's powers of observation and discrimination in discovering the diversities in the children. What a power a loving mother has to train all her children's minds, to bring them up to a love of reading, and to feed that love! In family government there is a great deal of mind, as well as character. It is impossible, for instance, to be just—daily, hourly, on the instant—unless with clear insight and strong moral perception there be joined sound thinking. Yet there is no more precious attribute of the mother and the trainer than justice.

Think how many arts and sciences can be applied day by day in the conduct of a family! Think what the world still lacks in this respect—the material knowledge to be applied in the bringing up of a family! There is a great deal to be done in that direction, and the women who have enjoyed the higher education are the best fitted to do it.

I say, therefore, that preparation for this normal occupation of women should be the main object of the training supplied in the higher education of women. It has not been thought of in that way. The colleges for men have in some respects held a perverse view of the object of the higher education, particularly during the last twenty years. They

have been too much inclined to develop the material, professional, vocational object; whereas the main object is that cultivation which fits each man for discharging the duties of his life, not only with efficiency, justice, and competent knowledge, but with enjoyment, with happiness. That is the object that should be kept before young women in their colleges—the acquisition of the powers which will enable a woman to discharge well her main function in life, not only with intelligence and justice, but with enjoyment, bringing forth happiness for herself as well as for her family.

The main object of the higher education of women has not been kept sufficiently in view. Of course, there are other objects, plenty of them—training for the professions; training for all the varieties of work that women are now engaging in; training for all that enjoyment and usefulness that comes with knowledge of the fine arts, and with appreciation of the artistic spirit, and of what the artistic spirit can do for the activities of a nation. It is woman to whom falls in greater part the training of the population in the sense of beauty and in appreciation of the worth of beauty. Who keeps the flowers blooming in the average house lot? Who fills the one southern window with plants in tin cans and broken pieces of crockery? Who engages the florist to keep the rich house filled with flowers through all seasons? For whom are all the beautiful objects in the rich home procured and set forth? Always by and for the woman. Who teaches the little children to enjoy the beauties of

nature and of art? Always, or almost always, the woman.

I look forward, therefore, to the future of the higher education for women as a great influence in the perfecting of family life, of civic life, of household joy and good. It has been perfectly natural that the higher education of women should have been directed toward bringing women into new occupations; that was one of the ambitions of the leaders; and particularly to bring them into the professions—the professions as men have made them. Natural, I say; inevitable, perhaps.

But wiser ways and methods will come into play, because it is not the chief happiness or the chief end of women, as a whole, to enter those new occupations, or to pursue them through life. They enter many which they soon abandon, and that is well—particularly the abandonment! But natural and inevitable as this tendency was in the beginnings of the higher education of women, it is high time that it be abandoned as the chief object; and that the prime motive of the higher education of women should be recognized as the development in women of the capacities and powers which will fit them to make family life and social life more intelligent, more enjoyable, happier, and more productive—more productive in every sense, physically, mentally, and spiritually.

To this modification of the higher education of women as we have seen it during the past generation may we not all look forward with abundant hope?

1908

EDUCATION FOR EFFICIENCY

EDUCATION for efficiency is my subject. By efficiency I mean effective power for work and service during a healthy and active life. This effective power every individual man or woman should desire and strive to become possessed of; and to the training and development of this power the education of each and every person should be directed. The efficient nation will be the nation made up, by aggregation, of individuals possessing this effective power; and national education will be effective in proportion as it secures in the masses the development of this power and its application in infinitely various forms to the national industries and the national service.

Let me say at once that this education for efficiency is not a training which should cease with youth. On the contrary, it should be prolonged through adult years, until the powers of the mind and body begin with added years to decline. It has been too much the custom to think of education as an affair of youth, and even of the earlier years of youth; but it really should be the work of the whole life. Because the large majority of American children cease to go to school by the time they are fourteen years of age, it by no means follows that their education should

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cease at that early age. More and more, of late, regular and formal provision for a continued education is made in public school systems, through beneficent endowments and by private enterprise. The prolongation of the period of formal education for a considerable minority of American children, and the provision of summer schools, evening schools, trade schools, correspondence schools, business colleges, and reading circles of many sorts, with public libraries and book clubs, illustrate the increasing prevalence of the new idea that education is to be prolonged through adult life, and may be carried on in a systematic and active way long after the individual has begun to earn his livelihood in whole or in part.

Now all education at every stage of life comprehends two processes—the training of powers and the acquisition of knowledge. Childhood and youth are the time for acquiring new mental processes and functions and for exercising and strengthening the memory. The child initiates new processes of thought and establishes new mental habits much more easily than the adult; but the adult, with trained powers, has an immense advantage over the child in the acquisition of information. The important thing in childhood is, therefore, to train the child in as large a variety of mental processes as possible, and to establish as many useful mental habits as possible. During this training an immense body of information will be incidentally acquired, but not so rapidly as the same person grown up can acquire it. Several years ago I gave a demonstration that a good high

school graduate about eighteen years old could do in fifteen hours all the examples in arithmetic which the grammar school children in the same town did in two years, giving one fifth of their school-time to the subject in each year, after having studied arithmetic in the primary classes—that is, a youth of eighteen years could do in fifteen hours what grammar school children about twelve years of age required two fifths of their school-time for a whole year to accomplish. I have often known young men, twenty or twenty-one years of age, to master within three months the whole of the elementary requirement in Latin for admission to Harvard College—a requirement which is supposed to imply a systematic course of five lessons a week, extending through at least the three years between fourteen and seventeen years of age. Many a practicing lawyer in the prime of life will master in a few weeks the principles and the details of a complex subject in science or art, in transportation or manufacturing, with an accuracy and comprehensiveness which enable him to deal successfully with the subject in competitive argument. Many an adult reader with trained habits of attention and concentration will absorb the contents of a book with a speed and retentiveness which no child can approach. The important things to accomplish through education in youth are, therefore, the initiation of mental processes and the establishment of good mental habits, with incidental acquisition of information. Continued education during adult life will provide increasing stores of information. Education for efficiency, individual or national, will take

account of these different, but complementary advantages of youth and of maturity.

The debate over the proper selection of studies in youth has been a long and wearisome one; but at last two propositions are seen to command almost universal acceptance. The first is that children and young people should study the elements of a considerable variety of subjects, such as language, mathematics, history, natural science, sanitation, and economics, not with the primary purpose of obtaining information on those subjects, but in order that they may sample several kinds of knowledge, initiate the mental processes and habits appropriate to each, and have a chance to determine wisely in what direction their own individual mental powers can be best applied. The second is that training for power of work and service should be the prime object of education throughout life, no matter in what line the trained powers of the individual may be applied. This measure of consenting opinion frees me from the necessity of discussing the relative values of different subjects of study, and the different meanings of the word cultivation, and enables me to ask your attention at once to the fundamental matters with which education for efficiency should deal.

I take up first the training of the bodily senses and the care of the body. The training of sight, hearing, smell, taste, and touch has been neglected in education to a most extraordinary degree. Indeed, schools and urban conditions of life have actually impaired on a great scale the sense of sight—that best window of the soul. Quickness and

accuracy in all the senses are of high value to the individual throughout life; and in innumerable cases some slight but unusual superiority in one or more of the senses becomes the real basis of success in life. Thus, the father and son who made those wonderful glass models of flowers in the Museum of Harvard University inherited from generations of glass blowers, and developed in their own persons, an exquisite skill of eye and hand which gave them their unique success in that artistic craftsmanship. The skill of most good mechanics depends on the sure coöperative action of a practiced eye and a practiced hand. Most successful surgeons possess as the basis of their success an unusual accuracy of sight and touch combined with a sure memory in regional anatomy and a presence of mind which no emergency can perturb. The locomotive engineer, or the motorman on an electric car, needs a short-time reaction—that is, the interval between his sight of a signal, or of an object which presents itself suddenly, and the corresponding action of his hand and body must be very brief. This is a bodily quality which must be combined with a natural steadiness of mind and an indefatigable alertness. The training of the ear should come through reading aloud, reciting prose and poetry, and music. Education should try to increase systematically pleasures through the ear to compensate for the horrid noises of urban life. The sense of smell deserves a careful training; for it is the daily source of keen gratifications, the frequent renewer of mental associations, and the best natural protector against corrupted food, drink, and air.

As a rule no attention is paid during systematic education to this invaluable sense. While the body is under training and after it has been trained it requires a steady and intelligent care which education for efficiency should systematically teach. Here again much remains to be done in all the educational systems of the civilized world. We have just begun to provide medical inspection for children and medical visitation for older students, and to teach systematically the elements of personal hygiene and municipal sanitation. There is no longer any excuse for neglect of these subjects. Twenty-five years ago the medical profession did not know how to prevent the spread of typhoid fever, or malarial fever, or how to combat diphtheria or appendicitis or tuberculosis. Now medical science knows how to limit these evils and can do much to prevent their destructiveness. Within the same period the knowledge of civilized mankind concerning diets and the regimen of health has increased prodigiously; and the means of heating and ventilating houses, factories, and meeting-places have been wonderfully improved. To teach all these things to the whole community should be an important part of education for efficiency; for sickness suspends the efficiency of the individual and premature death destroys it, and when such losses are multiplied by the million, the national efficiency is gravely impaired. If education can succeed in prolonging the period of individual productiveness, and in preventing the breaks in that productiveness which sickness causes, it will thereby increase the

total national productiveness and efficiency. It will also add greatly to the public happiness.

Within recent years we have had abundant evidence in our own country and in many other countries that the most effective labor and the cheapest in proportion to its product is found where the laboring classes live comfortably, develop their intelligence, and widen their prospects. It is not the cheapest labor that is the most profitable, but the best fed and lodged, the healthiest, the most intelligent and the most ambitious. Since some of the fundamental conditions of well-being in the laboring classes are physical or bodily, so knowledge about the training and care of the body, where diffused through the whole population, ought to promote greatly that well-being. I have had the opportunity of watching for more than fifty years successive ranks of young men going out from Harvard University into the work of the world, and I have seen in hundreds of them the development of character and the issue or results of that development. Any one who has used such an opportunity will inevitably be an optimist concerning the effects and potentialities of education. As a rule, the comparison of the educated man of sixty with the same person at twenty is wonderfully encouraging and stimulating with regard to the average effects on human beings of education and the discipline of life; but such an optimist will confess, if he is candid, that the bodily excellences and virtues count very much toward this favorable result. It seems to me, as I review the life-failures I have witnessed, that the only cases of hopeless ruin are

those in which the body has first been ruined through neglect or vice, or was congenitally perverted and made the victim of criminal propensities. If, through drink or licentiousness or other vicious habits, the body of an educated man is ruined, there may be no recovery possible for that individual in this world; but whenever the body has escaped destruction and remains in tolerably sound condition there are few moral wrecks which may not be, to all seeming, completely repaired in this world. These considerations emphasize strongly the importance of making the means of protecting, caring for, and improving the body an important part of education for efficiency.

The next thing which education for efficiency should attend to is the imparting of the habit of quick and concentrated attention. Without this habit there can be no true economy of time. A prolonged attention is not natural to children, and should not be demanded of them; but quick and concentrated attention may be reasonably expected for brief intervals from every child, and as the age increases the possible period of close attention will grow longer and longer. The difference between adults in mental efficiency is chiefly a difference in this very power of concentrated attention. The man who has this power will grasp quickly new subjects presented to him, gratify people who have business with him by giving them prompt and effective attention, seize eagerly upon the contents of books or papers which relate to the affair in hand, and despatch his daily work, whatever its nature—mechanical, commercial, scholarly, or administra-

tive. He will do in one minute the work for which an inferior man will need five minutes or five hours. He will effect in every day of his life a great economy of time. There will be no dawdling or vague dreaming in the action of his mind. His thoughts will not be a rope of sand, but a chain of welded links. The great thinkers and doers, philosophers and inventors, soldiers and rulers are alike in possessing in the highest degree this power of concentrated attention; and in common men and women this is the most valuable of all mental faculties. To rouse, awake, inculcate, and train this power in the child and the youth should be a principal object in education for efficiency. We say of the child in whom this power does not seem to exist that he cannot apply himself, that he cannot be made to study, or that he does not set his mind at work. For every such child the main problem is to discover the means of interesting him in a mental occupation enough to induce him to concentrate his attention. Skill in discovering the means of interesting the childish mind enough to compel attention is characteristic of the good teacher. If oral instruction does not gain a close attention, perhaps books will; if books fail, carpenter's tools, cook's tools, a lathe, an embroidery frame, or a forge may succeed; if mechanical work does not rouse the mental forces, perhaps drawing or modelling will; if all other means fail, the training of the power of attention may be begun through music. The modern biographies which give us an insight into the working of the minds of their subjects, such as the biographies of Huxley, Darwin, Pasteur, Tenny-

son, Cavour, Lincoln, and Gladstone, show us the power of concentrated attention as the fundamental source of the prodigious productiveness of great workers.

It may seem strange to say so, but it is perfectly plain to persons who have been carefully observing the rising generations that education for efficiency must especially endeavor to induce young people to think. The incessant hurry and trivial activity of daily life which now characterize childhood and youth, as well as maturity, seem to prevent, or at least discourage, quiet and intense thinking, and particularly that inventive thinking, which is something more than sorting or putting in order materials supplied to the mind from without. The public press no longer invites its readers to sustained thought. Instead of a book, it gives them a six-page magazine article; instead of a half-column editorial, a three-line "brevity," which is often cast in a comical form. The average reader of the newspaper or the short story reads to forget, not to remember. He rarely has any intention of digesting and assimilating what he reads. For the most part, he rejects what he reads without even swallowing it. In former times reading seems to have involved some deliberate thinking on the part of the reader. It no longer does. Much of our daily reading is correctly described as mental dissipation. In school and college, the amplest use is made of helps to learning. Manuals and treatises facilitate to the utmost the acquisition of the prescribed quantities of knowledge; and tutors and professors offer additional aids, and almost succeed

in doing for their pupils the necessary minimum of thinking and willing. Now the efficient man is the man who thinks for himself, and is capable of thinking hard and long. This is a process which requires motive and will-power. Out in the world the motives are often pleasure in the exercise of power, or satisfaction in the getting of money or what money can buy; but obviously these motives are not immediately applicable during the period of education. The problem education for efficiency has to solve is how to stimulate young people to think in the absence of these pressing motives of the real world. Since consecutive thinking absolutely requires personal initiative, or a compulsion from within and not from without, there must be a motive for this compelling action of the will. One available motive is supplied by experience of the enjoyment or satisfaction which good thinking yields to the thinker; but this motive can be roused to activity in the study of those subjects only which have a natural interest for the young thinker. Hence the importance of discovering early those subjects for each individual. Another motive is the conviction that winning the best satisfactions of later life will depend on possessing this power to think. It is this conviction which converts a listless undergraduate into a diligent student of law or medicine. The teacher, the parent, or the friend can often do much to implant this conviction and to guide the pupil into an enjoyment of thinking; but that is about all the teacher or older friend can do. The school and college cannot use the method of Nature,—root, hog, or die,—and the more elaborate the schools

and colleges become, and the more ingenious their methods of teaching and of helping, the less can they use the compulsions which depend on fear of pain, poverty, obscurity, and dependence. The unthinking mind is not necessarily dull, rude, or impervious; it is probably simply empty, or occupied from moment to moment with unconnected trivialities. On the other hand, the thinking mind is as far as possible from the lazy mind. It may be meditative, reflective, or rudimentary; it will probably be abstracted or withdrawn from the external incidents of the moment, but it must be hard at work. To inspire the motive for this hard work at an early age, and to train the power of consecutive thinking, is the gravest problem in education for efficiency. The influence which develops the necessary motive in the thinking child or youth is, in most cases, a personal influence, which is partly stimulus, but more example. This influence should rather lead than drive; for the personal initiative in thinking is indispensable. The fortunate child is the one who gets at home this inspiration and guidance toward thinking. The power comes almost unconsciously to the child that grows up in a thoughtful home; but such homes are rare indeed. If the home cannot yield this influence, the next thing to hope for is that the child may come under the influence of a teacher who thinks and inspires thinking. The well-to-do parent who has an unthinking child may be wisely advised to search diligently from school to school for the teacher that can have that effect on his child. In the technical school or the college the student will probably get

the chance of coming under the influence of an enthusiastic specialist in the subject which the student affects; and this specialist may be a thinking man who leads his pupils to think. It has been imagined that science and laboratory work must be peculiarly thought-compelling; but this may not be at all true in the elementary stages of education. There are mechanical ways of cramming scientific facts and doing laboratory work; just as there are pigeonhole methods of accumulating and sorting materials and "sources" in philological and historical work. The manual, the syllabus, and the coach are now as well developed for scientific subjects as for literary. In teaching the young to think hard, any subject will answer. The problem is to get them to weigh evidence, draw accurate inferences, make fair comparisons, invent solutions, and form judgments; and this is the serious problem in all education for efficiency.

Another leading object in education for efficiency is the cultivation of the critical discernment of beauty and excellence in things and in words and thoughts, in nature and in human nature. We associate the word "criticism" with the discernment of defects and inferiorities, and the mind we ordinarily call critical is apt to have a keener scent for faults, mistakes, and offences than for merits, wise judgments, and right actions; but the faculty for discerning quickly and surely excellences and virtues in persons, peoples, nature, and art is an immeasurably more valuable and useful faculty than the faculty for seeing weaknesses and sins. It ought to be carefully and incessantly cultivated by school,

college, and the experience of life, for it is capable of contributing greatly to happiness as well as to material success. The faculty of discerning and using conspicuous merit in other people distinguishes the most successful administrators, rulers, and men of business. It is the habit of picking out beauties and excellences in mixed characters and mixed scenes, or in events containing both good and evil, which provides a firm foundation for satisfaction and content in daily life. This critical faculty for beauty and virtue in things and people can be cultivated to a high degree from early childhood throughout life, or it can be repressed and overborne by the opposite habit, which ordinary conversation and the daily press tend to foster, of attending to abnormal evils, crimes, and disasters, rather than to the normal fortunate course of events. Towards this habitual cultivation, what is called "nature study" is of great use, because nature is full of abounding beauties and excellences and of perfect adaptations of means to ends. To be sure, it is full too of ugliness, imperfections, and defects, but the order and stability of the natural world as it appears to human senses, and the proved fitness of the world to develop in man his noblest faculties, testify to the immense preponderance of good over evil in the universe as it appears to man. Is it not strange that the introduction of the study of nature into schools and colleges should have been reserved for the nineteenth century? Is it not stranger still that the garden as a means of teaching children should never have been used in public school systems till within the last few years?

The blackboard is an old invention like the sand table, but how does it compare with a garden plot as a means of teaching the critical discernment of beauty and excellence? It is characteristic of the advance of mankind toward civilization that men become more and more sensible of the good in the world and less and less apprehensive of the evil. In civilized society every child ought to be drilled in the critical discernment and appreciation of excellence and beauty, physical, mental, and moral. Should we not all be vastly more charitable in our judgments of people if we were in the habit of looking for the excellences in people's bodies, minds, and hearts, rather than for the defects? No man and no woman possesses perfect beauty, but most people possess some beauties; no man and no woman possesses a perfect character, but most men and women possess solid virtues, however their virtues may be mixed with vices. Let us teachers take thought for teaching on a great scale the habitual discernment of superiorities rather than of inferiorities.

Another faculty which all schools and colleges, all churches and all social institutions, and the experience of adult life should cultivate incessantly is the judicial faculty for the wise enjoyment of liberty. For savage or semi-civilized men, and for some children who pass through barbaric stages of development, authority is needed to restrain them from injuring themselves or others; but the diminishing part played by authority in the family and the commonwealth, and the increasing room and need for individual liberty are characteristic of

what we call modern civilization. The reason is that the will power of the individual is the taproot of all his growth in character and efficiency. Authority curbs the will power of the individual; liberty gives it play and exercises it. Therefore the training of the will to the wise use of liberty is the great means of developing individual strength of character and national greatness. The child or youth of weak will is the one that his teachers will find most difficult to train or to inspire. The nation which is impulsive, flighty, fickle, and hysterical will go down before the steady, considerate, phlegmatic, and resolute nation. Whatever else a school or a university may do for its pupils, if it does not implant the love of liberty and cultivate the lawful and productive use of liberty, that school or university will have failed to render its highest service to the youth under its charge. As a rule, universities have been schools of liberty, but there have been grave exceptions, like that of Oxford in Gladstone's time. The wise use of liberty, whether by an individual or a nation, can only be learnt by practice, and through the passing down from generation to generation of a gradually accumulated stock of public liberty; and since the governments of the civilized world are evidently to be based on a broad suffrage, it is of the utmost importance to the peaceful progress of mankind that the love of liberty should be inculcated and the practice of individual liberty should be systematically taught in the family and in all institutions of education. It becomes teachers, especially, to bear always in mind, and to observe in dealing with children, the

principle that it is liberty alone which fits men for liberty, as Gladstone wrote in 1882 about local government for Ireland.

The nineteenth century brought into the world for the service of education, as well as for the service of industries and government, the new temper of mind called the scientific; and the effects of this new temper or spirit have been nothing less than revolutionary. What is the real essence of this new temper or spirit, so far as it affects, or should affect, education? Is not its real essence the passion for truth, or for the fact, as distinguished from the guess, or the imagination? Is it not the preference for sound premises over logical trains of reasoning on doubtful premises? Is it not the conviction that action should be based not on shadowy inference or ingenious speculation, but on solid fact? The implanting of the love of truth as the opposite of error and of falsehood is surely one of the greatest contributions that education can make to individual efficiency; for the human powers, if they are to be efficiently used, must be exerted in accordance with the natural and moral law, or, in other words, in accordance with the facts of the world. This principle holds true in the least events and acts of the individual's life, as well as in the play of broad, national forces. If one wants to dam a little brook on his own farm, he must know whether he can get a water-tight foundation for his dam. If the United States means to maintain successfully a canal across the Isthmus of Panama, the designers of the canal must know the extreme rainfall of the watershed of the Isthmus, and the habits

of the river Chagres. Such an enterprise, small or large, can succeed only on firm foundations of truth or fact. If the primary-school teacher longs to stir the sluggish mind of one of her scholars, she must first find out what the sluggishness is due to—to poor food, to bad air, to adenoid growths, to astigmatic or near-sighted eyes, to dull hearing, or to fear, or shyness, or a broken will. She must find out the facts of the case before she can deal with it. She must learn the truth about that child before she can set it free. In order to cultivate the love of truth, it is of the utmost consequence that children should study things as well as words, external nature as well as books, living persons as well as pictures and descriptions of persons, events which take place before their eyes as well as stories of long past events. This is the explanation of the value of productive labor to the child or youth, provided always that the labor be proportionate to the pupil's strength and yield him some return which he values. Productive labor deals with facts, and is productive only so far as it conforms to the truth of things. The search for truth is the new passion and religion of to-day. It has been the most effective altruism of the nineteenth century. It rouses the enthusiastic devotion of many fine natures, inspires self-denial, patience, and courage, and makes men and women content to undergo hardships and to brave perils. With the love of truth often goes the love of freedom, and these two loves together are capable of inspiring and directing the most efficient human lives. That is a wonderful prophecy in John viii, 32: "Ye shall

know the truth and the truth shall make you free." It follows from this doctrine that the most important quality in a teacher, whether for children or for adults, is genuine and transparent truthfulness. No other qualities, however brilliant, can compensate for the absence of this quality in a teacher. In the same way and for the same reason, no quality is so valuable as truthfulness in the leaders of a free people, simply because truth-telling and truth-doing lie at the foundation of national efficiency. In a modern world a nation is effective in proportion to its truthfulness, or, in other words, in proportion as it keeps its thinking, speaking, and acting in accord with facts.

Finally, education for efficiency should supply every pupil with the motive power of some enthusiasm or devotion. The real motive power in every human life, and in all national life, is sentiment; and the highest efficiency cannot be produced in any human being unless his whole character and his whole activity be dominated by some sentiment or passion. An evil passion may give great physical and intellectual powers a terrible efficiency. A good passion can make ordinary talents extraordinarily effective. A life without a prevailing enthusiasm is sure not to rise to its highest level. These private enthusiasms or devotions are fortunately almost as various as are the characters of men. There are also beneficent enthusiasms which pervade, simultaneously, multitudes of human beings and give them a common effectiveness. At this moment a gregarious enthusiasm for social service inspires a considerable proportion of educated American

youth. Any one who has read many biographies will have perceived that the guiding enthusiasm of a life often springs early into view, and that this is almost always the case in the most effective human beings. The youth has a vision of the life he would like to live, of the service he would choose to render, of the power he would prefer to exercise; and for fifty years he pursues this vision. In almost all great men the leading idea of the life is caught early, or a principle or thesis comes to mind during youth which the entire adult life is too short to develop thoroughly. Most great teachers have started with a theory, or a single idea or group of ideas, to the working out of which in practice they have given their lives. Many great preachers have really had but one theme. Many architects have devoted themselves, with inexhaustible enthusiasm, to a single style in architecture. Some of the greatest soldiers have fought all their battles by one sort of strategy adopted in their youth. Many great rulers have harped all their lives on only one string of national or racial sentiment. Among men of science the instances are innumerable in which a whole life has been devoted to the patient pursuit of a single vision seen in youth. For common men and women two or three of the common loves will suffice—the love of family and home, of school and church, of mountain and sea, of nature and books, of private and public liberty, of truth and justice. For us teachers it is indeed an inspiring fact that effective and enduring enthusiasms spring up spontaneously, or may be implanted in early life; for without them education cannot procure the

highest efficiency, either during youth, or for the after-life. Education for efficiency must not be materialistic, prosaic, or utilitarian; it must be idealistic, humane, and passionate, or it will not win its goal.

1909

THE NEW DEFINITION OF THE CULTIVATED MAN

To produce the cultivated man, or at least the man capable of becoming cultivated in after-life, has long been supposed to be one of the fundamental objects of systematic and thorough education. The ideal of general cultivation has been one of the standards in education. It is often asked: Will the education which a given institution is supplying produce the cultivated man? Or, can cultivation be the result of a given course of study? In such questions there is an implication that the education which does not produce the cultivated man is a failure, or has been misconceived, or misdirected. Now, if cultivation were an unchanging ideal, the steady use of the conception as a permanent test of educational processes might be justified; but if the cultivated man of to-day is, or ought to be, a distinctly different creature from the cultivated man of a century ago, the ideal of cultivation cannot be appealed to as a standard without preliminary explanations and interpretations. It is the object of this paper to show that the idea of cultivation in the highly trained human being has undergone substantial changes during the last century.

I ought to say at once that I propose to use the term "cultivated man" in only its good sense—in

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Emerson's sense. In this paper, he is not to be a weak, critical, fastidious creature, vain of a little exclusive information or of an uncommon knack in Latin verse or mathematical logic; he is to be a man of quick perceptions, broad sympathies, and wide affinities; responsive, but independent; self-reliant, but deferential; loving truth and candor, but also moderation and proportion; courageous, but gentle; not finished, but perfecting. All authorities agree that true culture is not exclusive, sectarian, or partisan, but the very opposite; that it is not to be attained in solitude, but in society; and that the best atmosphere for culture is that of a school, university, academy, or church, where many pursue together the ideals of truth, righteousness, and love.

Here someone may think: This process of cultivation is evidently a long, slow, artificial process; I prefer the genius, the man of native power or skill, the man whose judgment is sound and influence strong, though he cannot read or write—the born inventor, orator, or poet. So do we all. Men have always reverenced prodigious inborn gifts, and always will. Indeed, barbarous men always say of the possessors of such gifts: These are not men, they are gods. But we teachers who carry on a system of popular education, which is by far the most complex and valuable invention of this century, know that we have to do, not with the highly gifted units, but with the millions who are more or less capable of being cultivated by the long, patient, artificial training called education. For us and our system, the genius is no standard, but the cultivated

man is. To his stature we and many of our pupils may in time attain.

There are two principal differences between the present ideal of cultivation and that which prevailed at the beginning of the nineteenth century. All thinkers agree that the horizon of the human intellect has widened wonderfully during the past hundred years, and that the scientific method of inquiry, which was known to but very few when the nineteenth century began, has been the means of that widening. This method has become indispensable in all fields of inquiry, including psychology, philanthropy, and religion; and therefore intimate acquaintance with it has become an indispensable element in culture. As Matthew Arnold pointed out more than a generation ago, educated mankind is governed by two passions—one the passion for pure knowledge, the other the passion for being of service or doing good. Now, the passion for pure knowledge is to be gratified only through the scientific method of inquiry. In Arnold's phrases the first step for every aspirant to culture is to endeavor to see things as they are, or "to learn, in short, the will of God." The second step is to make that will prevail, each in his own sphere of action and influence. This recognition of science as pure knowledge, and of the scientific method as the universal method of inquiry, is the great addition made by the nineteenth century to the idea of culture. I need not say that within that century what we call science, pure and applied, has transformed the world as the scene of the human drama; and that it is this transformation which has compelled the recognition of

natural science as a fundamental necessity in liberal education. The most convinced exponents and advocates of humanism now recognize that science is the "paramount force of the modern, as distinguished from the antique and the mediæval spirit," [1] and that "an interpenetration of humanism with science, and of science with humanism, is the condition of the highest culture."

A second modification of the earlier idea of cultivation was advocated by Ralph Waldo Emerson more than two generations ago. He taught that the acquisition of some form of manual skill and the practice of some form of manual labor were essential elements of culture. This idea has more and more become accepted in the systematic education of youth; and if we include athletic sports among the desirable forms of manual skill and labor, we may say that during the last thirty years this element of excellence of body in the ideal of education has had a rapid, even an exaggerated, development. The idea of some sort of bodily excellence was, to be sure, not absent in the old conception of the cultivated man. The gentleman could ride well, dance gracefully, and fence with skill. But the modern conception of bodily skill as an element in cultivation is more comprehensive, and includes that habitual contact with the external world which Emerson deemed essential to real culture. We have lately become convinced that accurate work with carpenters' tools, or lathe, or hammer and anvil, or violin, or piano, or pencil, or crayon, or camel's-hair brush, trains well the same nerves and ganglia

[1] John Addington Symonds, *Culture.*

with which we do what is ordinarily called thinking. We have also become convinced that some intimate, sympathetic acquaintance with the natural objects of the earth and sky adds greatly to the happiness of life, and that this acquaintance should be begun in childhood and be developed all through adolescence and maturity. A brook, a hedgerow, or a garden is an inexhaustible teacher of wonder, reverence, and love. The scientists insist to-day on nature study for children; but we teachers ought long ago to have learned from the poets the value of this element in education. They are the best advocates of nature study. If any are not convinced of its worth, then let them go to Theocritus, Virgil, Wordsworth, Tennyson, or Lowell for the needed demonstration. Let them observe, too, that a great need of modern industrial society is intellectual pleasure, or pleasure which, like music, combines delightful sensations with the gratifications of observation, association, memory, and sympathy. The idea of culture has always included a quick and wide sympathy with men; it should hereafter include sympathy with nature, and particularly with its living forms, a sympathy based on some accurate observation of nature. The bookworm, the monk, the isolated student, has never been the type of the cultivated man. Society has seemed the natural setting for the cultivated person, man or woman; but the present conception of real culture contains not only a large development of this social element, but also an extension of interest and reverence to the animated creation and to those immense forces that set the earthly stage for man and all related beings.

Let us now proceed to examine some of the changes in the idea of culture, or in the available means of culture, which the last hundred years have brought about.

I. The moral sense of the modern world makes character a more important element than it used to be in the ideal of a cultivated man. Now, character is formed, as Goethe said, in the "stream of the world"—not in the stillness or isolation, but in the quick-flowing tides of the busy world, the world of nature and the world of mankind. At the end of the nineteenth century the world was wonderfully different from the world at the beginning of that eventful period; and, moreover, men's means of making acquaintance with the world were vastly ampler than they were a hundred years earlier. To the old idea of culture some knowledge of history was indispensable. Now, history is a representation of the stream of the world, or of some little portion of that stream, one hundred, five hundred, two thousand years ago. Acquaintance with some part of the present stream ought to be more formative of character, and more instructive as regards external nature and the nature of man, than any partial survey of the stream that was flowing centuries ago. We have, then, through the present means of reporting the stream of the world from day to day, material for culture such as no preceding generation of men has possessed. The cultivated man or woman must use the means which steam and electricity have provided for reporting the play of physical forces and of human volitions which make the world of to-day; for the world of

to-day supplies in its immense variety a picture of all stages of human progress, from the stone age, through savagery, barbarism, and mediævalism, to what we now call civilization. The rising generation should think hard, and feel keenly, just where the men and women who constitute the actual human world are thinking and feeling most to-day. The panorama of to-day's events is not an accurate or complete picture, for history will supply posterity with much evidence which is hidden from the eyes of contemporaries; but it is nevertheless an invaluable and a new means of developing good judgment, good feeling, and the passion for social service; or, in other words, of securing cultivation. But some one will say: The stream of the world is foul. True in part. The stream is, what it has been, a mixture of foulness and purity, of meanness and majesty; but it has nourished individual virtue and race civilization. Literature and history are a similar mixture, and yet are the traditional means of culture. Are not the Greek tragedies means of culture? Yet they are full of incest, murder, and human sacrifices to lustful and revengeful gods.

II. A cultivated man should express himself by tongue or pen with some accuracy and elegance; therefore, linguistic training has had great importance in the idea of cultivation. The conditions of the educated world have, however, changed so profoundly since the revival of learning in Italy that our inherited ideas concerning training in language and literature have required large modifications. In the year 1400, it might have been said with truth that there was but one language of scholars, the

Latin, and but two great literatures, the Hebrew and the Greek. Since that time, however, other great literatures have arisen, the Italian, Spanish, French, German, and above all the English, which has become incomparably the most extensive and various and the noblest of literatures. Under these circumstances it is impossible to maintain that a knowledge of any particular literature is indispensable to culture. Yet we cannot but feel that the cultivated man ought to possess a considerable acquaintance with the literature of some great language, and the power to use the native language in a pure and interesting way. Thus, we are not sure that Robert Burns could be properly described as a cultivated man, moving poet though he was. We do not think of Abraham Lincoln as a cultivated man, master of English speech and writing though he was. These men do not correspond to the type represented by the word "cultivated," but belong in the class of geniuses. When we ask ourselves why a knowledge of literature seems indispensable to the ordinary idea of cultivation, we find no answer except this, that in literature are portrayed all human passions, desires, and aspirations, and that acquaintance with these human feelings, and with the means of portraying them, seems to us essential to culture. These human qualities and powers are also the commonest ground of interesting human intercourse, and therefore literary knowledge exalts the quality and enhances the enjoyment of human intercourse. It is in conversation that cultivation tells as much as anywhere, and this rapid exchange of thoughts is by far the commonest manifestation

of its power. Combine the knowledge of literature with knowledge of the "stream of the world," and you have united two large sources of the influence of the cultivated person. The linguistic and literary element in cultivation therefore abides, but has become vastly broader than formerly; so broad, indeed, that selection among its various fields is forced upon every educated youth.

III. The next great element in cultivation to which I ask your attention is acquaintance with some part of the store of knowledge which humanity in its progress from barbarism has acquired and laid up. This is the prodigious store of recorded, rationalized, and systematized discoveries, experiences, and ideas. This is the store which we teachers try to pass on to the rising generation. The capacity to assimilate this store and improve it in each successive generation is the distinction of the human race over other animals. It is too vast for any man to master, though he had a hundred lives instead of one; and its growth in the nineteenth century was greater than in all the thirty preceding centuries put together. In the eighteenth century a diligent student, with quick powers of apprehension and strong memory, need not have despaired of mastering a large fraction of this store of knowledge. Long before the end of the nineteenth century such a task had become impossible. Culture, therefore, can no longer imply a knowledge of everything—not even a little knowledge of everything. It must be content with general knowledge of some things, and a real mastery of some small portion of the human store. Here is a profound

modification of the idea of cultivation which the nineteenth century has brought about. What portion or portions of the infinite human store are most proper to the cultivated man? The answer must be: Those which enable him, with his individual personal qualities, to deal best and sympathize most with nature and with other human beings. It is here that the passion for service must fuse with the passion for knowledge. It is natural to imagine that the young man who has acquainted himself with economics, the science of government, sociology, and the history of civilization in its motives, objects, and methods, has a better chance of fusing the passion for knowledge with the passion for doing good than the man whose passion for pure knowledge leads him to the study of chemical or physical phenomena, or of the habits and climatic distribution of plants or animals. Yet, so intricate are the relations of human beings to the animate and inanimate creation that it is impossible to foresee with what realms of nature intense human interests may prove to be identified. Thus the generation now on the stage has suddenly learned that some of the most sensitive and exquisite human interests, such as health or disease, and life or death for those we love, are bound up with the life-histories of parasites on the blood corpuscles or of certain varieties of mosquitoes and ticks. When the spectra of the sun, stars, and other lights began to be studied, there was not the slightest anticipation that a cure for one of the most horrible diseases to which mankind is liable might be found in the X-rays. While, then, we can still see that cer-

tain subjects afford more obvious or frequent access to means of doing good and to fortunate intercourse with our fellows than other subjects, we have learned that there is no field of real knowledge which may not suddenly prove contributory in a high degree to human happiness and the progress of civilization, and therefore acceptable as a worthy element in the truest culture.

IV. The only other element in cultivation which time will permit me to treat is the training of the constructive imagination. The imagination is the greatest of human powers, no matter in what field it works—in art or literature, in mechanical invention, in science, government, commerce, or religion; and the training of the imagination is, therefore, far the most important part of education. I use the term "constructive imagination" because that implies the creation or building of a new thing. The sculptor, for example, imagines or conceives the perfect form of a child ten years of age. He has never seen such a thing, for a child perfect in form is never produced; he has only seen in different children the elements of perfection, here one element and there another. In his imagination he combines these elements of the perfect form, which he has only seen separated, and from this picture in his mind he carves the stone, and in the execution invariably loses his ideal—that is, falls short of it, or fails to express it. Sir Joshua Reynolds points out that the painter can picture only what he has somewhere seen; but that the more he has seen and noted, the surer he is to be original in his painting, because his imaginary combinations will be original.

Constructive imagination is the great power of the poet as well as of the artist; and the nineteenth century has convinced us that it is also the great power of the man of science, the investigator, and the natural philosopher. What gives every great naturalist or physicist his epoch-making results is precisely the imaginative power by which he deduces from masses of fact the guiding hypothesis or principle.

The educated world needs to recognize the new varieties of constructive imagination. Dante gave painful years to picturing on many pages of his immortal comedy of hell, purgatory, and paradise the most horrible monsters and tortures, and the most loathsome and noisome abominations, that his fervid imagination could concoct out of his own bitter experiences and the manners and customs of his cruel times. Sir Charles Lyell spent many laborious years in searching for and putting together the scattered evidences that the geological processes by which the crust of the earth has been made ready for the use of man have been, in the main, not catastrophic, but gradual and gentle; and that the forces which have been in action through past ages are, for the most part, similar to those we may see to-day eroding hills, cutting cañons, making placers, marshes, and meadows, and forming prairies and ocean floors. He first imagined, and then demonstrated, that the geologic agencies are not explosive and cataclysmal, but steady and patient. These two kinds of imagination—Dante's and Lyell's—are not comparable, but both are manifestations of great human power. Zola in *La*

bête humaine contrives that ten persons, all connected with the railroad from Paris to Havre, shall be either murderers or murdered, or both, within eighteen months; and he adds two railroad slaughters criminally procured. The conditions of time and place are ingeniously imagined, and no detail is omitted which can heighten the effect of this homicidal fiction. Contrast this kind of constructive imagination with the kind which conceived the great wells sunk in the solid rock below Niagara that contain the turbines, that drive the dynamos, that generate the electric force that turns thousands of wheels and lights thousands of lamps over hundreds of square miles of adjoining territory; or with the kind which conceives the sending of human thoughts across three thousand miles of stormy sea instantaneously, on nothing more substantial than ethereal waves. There is no crime, cruelty or lust about these last two sorts of imagining. No lurid fire of hell or human passion illumines their scenes. They are calm, accurate, just, and responsible; and nothing but beneficence and increased human well-being results from them. There is room in the hearts of twentieth-century men for a high admiration of these kinds of imagination, as well as for that of the poet, artist, or dramatist.

Another kind of imagination deserves a moment's consideration—the receptive imagination which entertains and holds fast the visions genius creates or the analogies of nature suggest. A young woman is absorbed for hours in conning the squalid scenes and situations through which Thackeray portrays the malign motives and unclean soul

of Becky Sharp. Another young woman watches for days the pairing, nesting, brooding, and foraging of two robins that have established home and family in the notch of a maple near her window. She notes the unselfish labors of the father and mother for each other and for their little ones, and weaves into the simple drama all sorts of protective instincts and human affections. Here are two employments for the receptive imagination. Shall systematic education compel the first, but make no room for the second? The increasing attention to nature study suggests the hope that the imaginative study of human ills and woes is not to be allowed to exclude the imaginative study of nature, and that both studies may count toward culture.

It is one lesson of the nineteenth century, then, that in every field of human knowledge the constructive imagination finds play—in literature, in history, in theology, in anthropology, and in the whole field of physical and biological research. That great century has taught us that, on the whole, the scientific imagination is quite as productive for human service as the literary or poetic imagination. The imagination of Darwin or Pasteur, for example, is as high and productive a form of imagination as that of Dante, or Goethe, or even Shakespere, if we regard the human uses which result from the exercise of imaginative powers, and mean by human uses not merely meat and drink, clothes and shelter, but also the satisfaction of mental and spiritual needs. We must, therefore, allow in our contemplation of the cultivated man a large expansion of the fields in which the cultivated imagination

may be exercised. We must extend our training of the imagination beyond literature and the fine arts, to history, philosophy, science, government, and sociology. We must recognize the prodigious variety of fruits of the imagination that the last century has given to our race.

It results from this brief survey that the elements and means of cultivation are much more numerous than they used to be; so that it is not wise to say of any one acquisition or faculty: With it cultivation becomes possible; without it, impossible. The one acquisition or faculty may be immense, and yet cultivation may not have been attained. Thus, it is obvious that a man may have a wide acquaintance with music, and possess great musical skill and that wonderful imaginative power which conceives delicious melodies and harmonies for the delight of mankind through centuries, and yet not be a cultivated man in the ordinary acceptation of the words. We have met artists who were rude and uncouth, yet possessed a high degree of technical skill and strong powers of imagination. We have seen philanthropists and statesmen whose minds have played on great causes and great affairs, and yet who lacked a correct use of their native language, and had no historical perspective or background of historical knowledge. On the other hand, is there any single acquisition or faculty which is essential to culture, except, indeed, a reasonably accurate and refined use of the mother-tongue? Again, though we can discern in different individuals different elements of the perfect type of cultivated man, we seldom find combined in any human

being all the elements of the type. Here, as in painting or sculpture, we make up our ideal from traits picked out from many imperfect individuals and put together. We must not, therefore, expect systematic education to produce multitudes of highly cultivated and symmetrically developed persons; the multitudinous product will always be imperfect, just as there are no perfect trees, animals, flowers, or crystals.

It has been my object to point out that our conception of the type of cultivated man has been greatly enlarged, and on the whole exalted, by observation of the experiences of mankind during the last hundred years. Let us as teachers accept no single element or kind of culture as the one essential; let us remember that the best fruits of real culture are an open mind, broad sympathies, and respect for all the diverse achievements of the human intellect at whatever stage of development they may actually be—the stage of fresh discovery, or bold exploration, or complete conquest. Let us remember that the moral elements of the new education are individual choice of studies and career among a great, new variety of studies and careers, early responsibility accompanying this freedom of choice, love of truth, now that truth may be directly sought through rational inquiry, and an omnipresent sense of social obligation. These moral elements are so strong that the new forms of culture are likely to prove themselves quite as productive of morality, high-mindedness, and idealism as the old.

1903

THE RELIGIOUS IDEAL IN EDUCATION

THE subject of this article is "The Religious Ideal in Education." At the outset of this discussion we must try to arrive at a clear conception of the meaning of the phrase "religious ideal," and particularly of the signification of the word "religious" as used in connection with education. Religion is a word used in many senses. It may signify the outward form which a spiritual devotion assumed, or a system of faith and worship, or the expression of human love and fear toward some superhuman power, an expression which may include the observance of certain rites and ceremonies or of certain rules for the conduct of life, or the profession of certain beliefs. It may signify, too, the outward acts or forms in which men acknowledge and worship a divine being or beings to whom they conceive that obedience and service are due. Corresponding to these various meanings of the word religion are the varieties of use of the word religious. It may mean merely set apart for purposes connected with religion, or it may mean devout or godly, when used of a man or a community possessing some form of religion. For the purposes of the present discussion the word religious is to be taken in its broadest designation. It does not refer to any particular religion, Moslem, Christian, Buddhist, or other. It does not imply acceptance of

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the doctrines or beliefs of any sect or church, ancient or modern, Christian or pagan. It has no reference to the performance of any particular rites, ceremonies, or observances. It pictures only a frame of mind, or a state of feeling, possible to men and women of any church or any sect.

The religious ideal in education herein described is the combination of three ideals which are the supreme result of the best human thinking and feeling through all recorded time. These ideals are truth, beauty or loveliness, and goodness. They have been attained through the experience and example of the finest geniuses that have appeared in the long series of human generations, and have been described and recorded in biography, history and literature. They have been arrived at through meditation and aspiration. They have been recorded in gospels, chronicles, annals, and epics; they have been set forth sometimes in stories or pictures of facts and actual events, but oftener in works of the imagination. They have been attained only in those nations which, like the Hebrews, Greeks and Hindus, have had a written language in which to record their stories, philosophies, and songs. The nations or tribes which have had no literature have not developed these ideals of truth, beauty, and goodness; they have had religions, but have been incapable of forming this religious ideal in education.

This discussion assumes that the education mentioned is education as conducted in a free state precluded from maintaining an establishment of religion, and pledged to the toleration of all forms

of religious belief. Civil government in the United States is subject to no ecclesiastical authority; and the various churches within its limits are subject to no civil authority in matters of belief. Government protects and aids all churches, but has itself no affiliation with any church. On the other hand, the free schools and universities, on which the education of the great mass of the people depends, are government schools supported by taxation—not by National taxation for the most part, but by State and municipal taxation. Education is therefore a great government function in the Republic; and when we speak of the religious ideal in education, we mean the religious ideal in the schools and universities which are supported by public taxation. Does the complete separation of Church and State which obtains everywhere in the United States shut out from the public schools and universities the religious ideal? Yes—if we mean by the religious ideal any dogmas, any prescribed rites and ceremonies, any fixed observances, any catechisms or liturgies. No—if we mean by the religious ideal truth, beauty and goodness, personified and held up before the rising generation as standards of right feeling and right conduct. It must be admitted that this use of the word religious is comparatively new in the world; but so is religious toleration, and so is democracy. To-day the devout Moslem calls the Christian an infidel. Multitudes of devout Christians still think of Unitarians as infidels or atheists. The synagogue Jew can hardly regard the temple Jew as a religious person at all; because the temple Jew fails to observe rites which to the

synagogue Jew are of the very essence of the Hebrew religion. The Catholic Church still holds that Protestants must not be buried in consecrated ground, and that children born to parents one of whom is Catholic and the other Protestant must all be brought up Catholic. Nevertheless, religious wars and persecutions have ceased in the civilized world, and have almost ceased in the semi-civilized. The traditional views of ecclesiastical authority are no longer listened to with the same submissive respect with which they were formerly received. The most authoritative churches and the most dogmatic theologies are losing their hold on men's minds. All thoughtful persons perceive that great multitudes of people who seem to be divided among different religions in the narrow sense live by the same religious ideals in the broad sense. They reverence and aspire to truthfulness, loveliness, and goodness.

If it be admitted for the purposes of this discussion that the ideals expressed in the words truth, beauty, and goodness are the common ideals of civilized men and women, there will still remain a grave question with regard to the religious ideal in education—namely, is it practicable to teach children, younger or older, the meaning of these conceptions, and to induce them to aspire to these standards, to pursue these perfections? We know that some kinds of instruction called religious can be imparted to some children by the traditional school processes. It is possible to teach most children something about the geography of Palestine and the barbaric history of the Hebrew people before the Christian era. The Ten Commandments,

the Sermon on the Mount, the Lord's Prayer, the so-called Apostles' Creed, and the Twenty-third Psalm can be committed to memory by most children. In Moslem countries almost the whole of education from the infant school through the university consists in committing to memory passages from the Koran and studying commentaries thereon. Such information and such limited selections from sacred literature, often described as religious knowledge or religious instruction, can be communicated to children and young people generation after generation, with more or less profit. To be sure, the Protestant Reformation created a great difficulty about this sort of religious instruction to all children, because the uniformity of instruction and discipline in the Church was lost. The advent of universal popular education created a still greater difficulty, particularly in those free states in which the churches were free and all churches were tolerated. These difficulties are of course comparatively recent in the history of the world; for the Protestant Reformation is by no means old yet, and popular education is still younger. As a matter of fact, in the United States the old-fashioned sort of religious instruction has disappeared from the public schools. It lingers only in denominational schools and Sunday-schools, and even there is at a low ebb. Shall education, then, have no religious ideal? Not if it proves possible to impart to the children in the public schools of the United States love and reverence for truth, beauty, and goodness.

Bacon called truth "the sovereign good of human

nature," but distinguished between the search for truth, "which is the love-making or wooing of it," and the knowledge of truth, and the belief of truth. It should be the incessant and primary object of all the free schools which deal with children from about the sixth year to about the eighteenth to teach them how truth is to be sought for, with what difficulty it is attained, how fruitful is the knowledge of it, and how enjoyable the possession of it. In everything the child learns or does or says, the element of truthfulness should be considered. In mathematics a child comes in contact with demonstrated truth which knows no variation, but is absolute and uniform. The physical sciences even in their elements teach the indispensableness of accuracy and precision. To use successfully any instrument of precision is a lesson in truthfulness. Has this piece of board really been smoothed to a plane surface? Not if light shows between the board and a straight-edge placed across it in several different directions. Every child should learn at school how hard it is to ascertain a fact; how hard it is to learn any little bit of new truth. To get a vision of the way in which new truth is found is much more important for a child than to gain a knowledge of many old truths; for in after life, if the individual knows the way to truth, he will safely gain much knowledge, and, moreover, will avoid the paths of error. Experimental psychology has in recent years developed many methods of training children and young people in telling what they saw on the instant in a simple or a complex scene, and in repeating as accurately as possible what they heard in a short

conversation, and many ways of teaching them how to guard against illusions of the senses, and against vague or false descriptions or narrations concerning things seen or heard. All commercial and industrial departments of schools or universities have admirable opportunities for inculcating business honor, which is a combination of truth and justice in business. All mechanic arts schools are teaching effectively fidelity and loyalty in mechanical work, in which sentiments truth is the principal factor. A loose joint, or a rivet which does not fit, or a stitch set too near the edge, is a lie in work, and any considerable admixture of such lies will destroy both the fabric itself and its usefulness as a school lesson in truthfulness. In using history and literature as a means of developing the mental faculties and moral perceptions of the child the teacher, from the beginning to the end of the school course, ought to dwell on the presence or absence in the book used of truthfulness of representation, and on the truth to external nature and human nature of the narration or the fiction, and to make plain the difference between fact and fancy. There is an intimate connection through all human history and through each single human life between truth and freedom. As Jesus said, "Ye shall know the truth, and the truth shall make you free." There is no juster sentiment than that in the New Testament; but there is one other which is comparable with it in majesty and universality: "God is a Spirit: and they that worship him must worship him in spirit and in truth." These two sayings of Jesus are solid foundations for the doctrine that truth

is one of the great elements of the religious ideal.

The next member of the trinity which constitutes the religious ideal is beauty or loveliness. Our admiration for the beautiful is sometimes based in part on its serviceableness, or its productiveness, or on the power to confer benefits or give joy which resides in the beautiful object. Thus we may delight the more in a blossoming apple tree because we look forward to a fruit for every blossom; or in the tropics we may view with all the greater satisfaction a lofty palm tree or the sturdy, spreading breadfruit tree, because each yields nourishing and delicious food for man; but on the whole the appreciation of beauty is independent of any expectation or service or use from the beautiful object, although the beautiful object may be firmly associated in our minds with other enjoyments than those itself gives—as when a beautiful cathedral portal reminds us of the lofty emotions which multitudes of those who have passed through it have enjoyed within the cathedral walls; or when a beautiful organ case is associated in our minds with the delicious harmonies we have heard come forth from it. It is characteristic of the joys and satisfactions which love of beauty yields that they can never be in excess. Excess is impossible for that love. The love of beauty gives an enjoyment which is greatly heightened by human sympathy and fellowship; as Milton puts it:

> "Beauty is nature's coin; must not be hoarded,
> But must be current; and the good thereof
> Consists in mutual and partaken bliss,
> Unsavory in the enjoyment of itself."

It is a universal sense, natural to country dwellers and outdoor people, accessible to all except the dwellers in mediæval walled towns and modern congested cities. So injurious to human beings is deprivation of the sights and sounds of natural beauty that one of the most urgent of all social reforms of the past forty years has been the provision for city populations of reasonable access to the beauty of sky, park, and landscape. The love of beauty, or the sense of the beautiful, is a spiritual attribute of man. It rejoices not only in the actual material beauties of the external world in color, form, texture, and sound, but also in all representations or reproductions of natural beauties in speech, writing, or the arts—hence the firm hold of poetry and the fine arts on both cultivated and uncultivated people, and hence the sure development of one or more of the fine arts in any nation, some portion of which has risen out of barbarism into refined and improving conditions of life. The ideal of every art is perfection in its own kind, and hence the finest spirit in work is that of the artist who loves his work and is always trying to make it perfect. All human tasks or labors are good in proportion to their capacity to satisfy the workman's artistic aspiration toward perfection. The sense of the beautiful or the lovely is therefore something which should be developed and cultivated throughout all education. Through all school life the utmost pains should be taken to stimulate in every child love of the beautiful, to keep the sentiment pure and noble, and to give the child through its gratification genuine joy and a satisfaction which will in-

crease as the child's whole nature develops, and will mount as life goes on. This sentiment is an important element in the spirit of man. Fed through the bodily senses, it is essentially an ethereal and religious delight. It speaks of man's soul, and makes a large part of all human imaginings of immortal joys.

The third element in the religious ideal in education is goodness. This conception has been arrived at by the race, and is arrived at by every child, through observation and experience of tenderness, sympathy, and good will. In the mind of a child it grows gradually under the influence of mother, father, brothers and sisters, and associates. It is developed by tales of human excellence and virtue, and by the child's admiration for teachers, discoverers, and heroes. Some person or persons represent to the child goodness; and by and by literature enlarges the child's conception of human excellence and virtue by supplying numerous illustrations of personified goodness. Later, when the child has come to possess some power to separate abstract ideas from the concrete, and to make use of analogy and simile, he forms a picture of the infinite goodness called God; and this picture changes as the child's life goes on, as its knowledge widens and its experience of life increases. Thus every child passes in its own development through the several stages of the religious history of the race. This growth is going on actively through the whole school period, and continues through life in every individual who thinks and reflects, and keeps alive within him an animating intelligence and a guiding will. The growth is most rapid

during the period of school life; and it should be a principal object of every school to help every day every child to discern, admire, and love goodness. If his thoughts and studies are rightly directed, the child will early discover that the good human being never lives to himself, that good will regards other human beings, that gentleness and tenderness, mother love, and the teacher's love and hopefulness flow forth from self to others. He should learn from the books he uses in school, from the school's own discipline and necessary order, that we are all "members one of another." The school should teach every child the virtue of coöperation for good objects. The public school in a republic ought to teach the lesson of coöperation, if it teaches nothing else; for in coöperation, on the large scale and the small, lies the great hope of industrial and political progress. By a larger sympathetic inclusion, the school should teach love of country, that form of good will which comprehends great areas, and great multitudes who recognize common bonds of duty and serviceableness, and who pursue in common health, wealth, and righteousness. These teachings of the republican school must come, not through formal ethics or civics, but through the reading, history, geography, and the elements of science and art which make up the studies of the school; but also and chiefly through the manners, speech, and spiritual quality of the teachers. They must reverence truth, beauty, and goodness, and must daily manifest that reverence before their pupils.

Such, to my thinking, is the religious ideal which

ought to inspire and guide public education in a state which protects all religions but prescribes no one. A generation of children taught to love truth, beauty, and goodness will possess the virtues which make human loves pure, homes sweet, and sound families, industries, and governments possible. Nevertheless, important functions will remain to the churches in all their variety. The churches must see to it that each imparts to its children, in addition to the religious training received at the public school, its own conceptions of the nature and attributes of the Deity, of the historic Christ, of ecclesiastical authority, and of the authority of the books it holds most sacred. Each church will need to teach its own history and its own peculiar thought, and to familiarize its children with its peculiar dogmas and with the rites and observances which it holds sacred. With all these instructions the free school can have nothing to do; but the families and the churches can severally build them on the firm foundations which the public school has laid in the minds and hearts of its pupils, foundations which are universal and eternal. There is a saying, attributed to Jeremy Taylor, which describes the ends of education with a dignity and completeness which makes the saying a worthy ideal for the republican free school. He wishes for every child "a mind apt to noble choices, and a heart capable of a mighty love." That should be the individualistic outcome of universal popular education.

1911

THE UNIVERSITY PRESIDENT IN THE AMERICAN COMMONWEALTH

A LIVELY discussion has recently taken place about the proper functions of the American university president, an educational officer unknown in other countries, who has been developed in the United States during the past hundred years. The college president in Colonial times and during the last quarter of the eighteenth century and the first quarter of the nineteenth century was almost always a minister, and his function was religious, and, by attribution, paternal. He came to a presidency out of a profession in the practice of which some knowledge of Hebrew, Greek, and Latin was indispensable, and acquaintance with the elements of logic, metaphysics, and rhetoric useful. The training provided by a college in those days might have been properly called cultural, because the dead languages and the elements of mathematics, logic, and rhetoric are cultural studies; but it was also in a high degree vocational for a single profession, the ministry, and this vocational training all students were required to take. Nothing else was offered them. Nothing better for general training was known to those generations.

By the nineteenth century professional training for law and medicine had found its way into many

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American universities; and the strongest universities had begun to teach actively several of the new sciences, and to prepare young men for the scientific and artistic professions. The field of university work was thus greatly extended. The organization of a university became complex; and its administration came to require the whole time of some single officer, and that officer was usually the president. Even the denominational colleges, intended for young men of from eighteen to twenty-one or twenty-two years of age, were forced to teach many new subjects, in addition to the traditional subjects tributary to the vocational training of a minister. Each college and professional school within the university came to have its own dean, who took over the parental function formerly exercised by the president; and simultaneously the relation of all the state and of some of the endowed universities to institutional religion underwent a great change. In many of them official religious services ceased to be held; and nearly all wished to be regarded as unsectarian or undenominational. Under these circumstances it was not altogether convenient for a university to have a minister for president. Gradually the presidencies went to laymen, and in many instances to men whose own training had been on the side of science, the modern languages, economics, history, or government. Accordingly, most of the large American universities now have a layman for president, who ordinarily has no religious function, although he occasionally addresses the students on their private and public duties. The university president has become an

administrative officer who has a large influence on the policies of the institution, on the selection of the teaching staff, and on the directions of the university expenditure. Having been selected by the trustees or regents, who constitute the supreme governing board of the university, and been by them made the responsible head of the institution, he is entitled at the outset to their support and confidence, and usually commands both during his service. His advice they habitually take; his hopes become their hopes; and his judgment, formed after conference and discussion with them, is apt to prevail in their decisions, if he is a man of broad outlook, good temper, and discretion.

The prosperity of state universities depends very much on the influence of the president with the state legislature, and therefore on his power to present educational policies and issues in a persuasive and effective way. The presidents of state universities are nowadays selected by the trustees or regents with a view to their probable influence with the legislative bodies and the numerous associations formed to promote educational and industrial interests within the state. A president whose policies and arguments commend the university to the legislature and the leading people of the state inevitably acquires a strong influence over the university as a whole, an influence which is felt in every part of it. The president of an endowed university wins a similar influence if he is able to commend to the alumni and friends of the institution, and to the people at large, the work of the university, as illustrated by its graduates in the learned and scientific

professions, in journalism, letters, and science. If by direct appeals, and the indirect effects of the work of the university through its product of educated men, he wins the favorable opinion of the educated public, and the pecuniary support of numerous fee-paying students, grateful alumni, and other public-spirited friends of higher education, he will surely come to possess a strong influence in the management of the university, provided he be not only inventive and energetic, but also judicious and just.

Given this influential person at the head of a university, possessing the confidence of the governing board and of the public, will the control he can exercise probably have a good or a bad effect on the university and on the higher education? He is an official very different from the rector of a German university, the head of an English college, or the principal of a Scotch university. He has much more power than an English head or any rector annually elected, and by usage he holds power for a long time. A good president is indubitably an effective promoter of university progress and influence, and a valuable unifying agent in a complex organization. Have his powers and functions been developed during the past fifty years to a degree which threatens academic freedom, and the independence, public spirit, and self-respect of university teachers?

In the recent discussion of the functions of the American university president it has been maintained that a powerful president is likely to impair academic freedom, and to restrict unduly the influence of the professors and other teachers in the

management of the institution. It is alleged that in any university which has a strong president, the government is likely to be a personal government; that professors and other members of the university body are subject to the president's will; that the faculties cease to be deliberative bodies which freely discuss and adopt educational policies; that professors can not feel that they are independent members of a collegiate body which lays down by majority vote the principles by which each member is to be governed; and that the American professor, who used to be a person governed by rules to which he had consented, has become a person governed by rules made by a board of which he is not a member, and enforced by a superior officer whose interests are not identical with those of the university teachers. To deal satisfactorily with these doubts and apprehensions, it will be necessary to recall in some detail the distribution of functions and powers among the different bodies and officials that together constitute the government of an American university, whether tax-supported or endowed.

The president of a university is, and ought to be, the leader and executive officer of the trustees or regents; so that a preliminary question about the proper limits of presidential authority must be: What are the proper limits of the authoritative action of the trustees? It is obvious that the trustees, who hold and manage all university property, must make the final decisions in all money matters, including salaries and appropriations for current expenses. They therefore must determine the number of appointees in each of the several

classes of appointments, the scale of salaries and the rules for promotion and for automatic advancement of salaries. Neither professors nor bodies made up of professors, like faculties or departments, should have any function in regard to fixing salaries or making contracts to pay salaries, except an advisory function, and not even that as a right.

The trustees or regents should also determine, by means of a statute intended to be durable, the tenures of all the university offices; and if that statute has to be changed through force of circumstances, the new tenures should apply only to men newly appointed, the tenures of officers already in service being unaffected, unless by their request or consent. The subject of tenures is clearly not one which should be put within the control of professors, or of bodies composed of professors. It should be reserved to the governing board and its official advisers.

The adoption of a rule on automatic advances of salary, determined by length of service, is also a matter which should be reserved to the trustees. Such a rule, like the scale of salaries, has a strong effect on the annual budget of the institution and its general pecuniary management; so that the trustees should be solely responsible for it. In the practice of some American universities advances of salary are not invariably automatic, that is, so many dollars of salary additional for so many additional years of service, the trustees exercising some discretion in delaying or accelerating in special cases the customary advance. These cases always give rise to grave complaints from some section or other

of the staff, and sometimes impair confidence in the justice and good feeling of the trustees. Whenever the trustees withhold from a professor the customary advance, they confess that they made a mistake when they selected or promoted the professor. Their judgment was at fault, else the professor would now be worth the customary compensation. The presumption is strongly in favor of automatic advances; because on the whole they give greater satisfaction to the academic staff, and offer a contractual inducement to the university service which a prospect of discretionary advances can never equal.

The trustees should also determine the directions of university expenditure and the distribution of the free income of the university among its different schools and departments. Included in this function is decision of the recurring question of admitting new departments of instruction to the university budget. Since the middle of the nineteenth century the extraordinary enlargement of knowledge and the innumerable new applications of science have necessitated a large increase in the number of departments of instruction in every considerable American university; so that the question of creating some new department has often come before university trustees, and is apt to present great difficulties, the trustees being embarrassed by narrow resources, on the one hand, and plain educational needs, soon to become urgent, on the other. On questions of this sort the trustees are obliged to act often without much suggestion or advice from professors or from academic bodies already in exist-

ence; and a competent and active university president is generally the best advisor for the trustees, for he is likely to have a large view of industrial and social conditions both present and future, and can see opportunities for enlarging the university's usefulness in the future more clearly than most professors or any academic bodies are likely to do.

The tenures and salaries of university offices having been fixed by the board of trustees, the selection of teachers is next to be made, and the work of selection in a large institution is continuous; for vacancies in the permanent staff have to be filled every year, and a large number of annual appointments are to be made year after year. The trustees, being professional or business men, are of course incompetent to select these teachers. In most cases they are acquainted neither with the subjects to be taught nor with the available men competent to teach them. At this point—the selection of teachers—the professors and the various departments of instruction among which the professors are distributed render invaluable service to the university. The annual appointments can best be recommended by the several departments, which are all groups of professors of one subject or of a few kindred subjects. These departments ought to know all the young scholars and teachers in their several subjects; and each department ought to be zealous to obtain at every opportunity the strongest possible personal reinforcement of its own group. But at this very point a competent president can make himself serviceable, first to the de-

partment engaged in making nominations, and next to the board of trustees. Each department, when making nominations, should be required to convince the president that their nominations are well grounded. He, and he alone, will have the opportunity of comparing the nominating work of all the departments, and of communicating to each the good methods discovered and the results obtained in other departments. The fact that his mind is to be brought to bear on the nominating work of all the departments, and that they must convince him of the merit of their selections and of their trustworthiness in making selections, will have a good effect on the work of the departments themselves. What is said here of departments will apply to professors in institutions which employ only one or two professors for each subject of instruction. In making their appointments, the trustees will necessarily rely on the nominations of the departments or professors, revised, approved, and brought to them by the president. This method of selecting university teachers calls for no action on the part of faculties or other academic bodies made up of professors of many different subjects. The faculty or other similarly constituted body will always be incompetent to make by majority vote the real selection of a university teacher, young or old, inexperienced or experienced. A professor of history or mathematics has no qualifications for selecting a professor of zoölogy or Germanic literature; and on any particular selection the majority of the members of the faculty will be incompetent voters.

Since the influence and serviceableness of any uni-

versity depend on the personal quality and scholarly achievements of its teaching staff, the continuous action of the professors in selecting with the coöperation of the president the incoming university teachers is of fundamental importance, and should be felt by them as a grave responsibility and a call to wise and disinterested activity. On account of the large number of annual or short-term appointments, the call is constant. The successful professors in a strong university recommend teachers not only for their own institution but for many other universities, and for colleges, technical schools, academies, and high schools. By thus getting places for their able disciples, they expand and prolong their own influence, increase the prestige of the institution they serve, and contribute to the improvement of the nation's education. This fine selective function comes to a professor as a result of his own scholarly attainments and personal power in teaching, and is quite independent of the university administration, except that an active appointments office can help to make the function continuously effective.

Promotions are also made in well-organized institutions on advice given to the president by professors or departments. In a sound institution the stages of promotion for a teacher are three or four in number, and vary in length from one to five years. In the case of any individual, therefore, the question of his promotion may arise three or four times before he attains to a professorship; and each time the president should recommend action to the trustees, not of his own will and on his sole respon-

sibility, but after conference with the professors most nearly concerned, and on their suggestion. Each promotion, like every original selection, should be the result of joint action by the professors interested and the president. This method of selecting and promoting university teachers offers the best securities possible against the danger of "breeding in and in," a danger which is very real whenever a faculty has full authority over appointments and promotions. Nothing is more natural than the tendency of professors and professorial bodies to prefer their own pupils as candidates for university appointments. An experienced president is likely to resist this tendency, whenever a good opportunity for making an outside choice presents itself.

The powers and responsibilities of professors in connection with the selection and promotion of teachers are so dignified and important that they ought to give every professor a sense that he has a significant share in the safe conduct of the university, in spite of the fact that this responsibility comes to him as a single trusted teacher, rather than as a member of an academic body which deliberates and votes. As to the part of the president in selections and promotions, the real danger is, not that he will take too much interest in them, but that he will not take enough; not that he will be self-willed and arbitrary in those important matters, but that he will not apply his mind to them as much as the real interests of the university require.

A university's trustees being usually men of strong business or professional sense, but not ex-

perts in any department of education, it has become the practice of experienced and competent boards of trustees to leave the initiation of educational policies and the solution of new educational problems to the university's faculties or to committees within faculties. This is a sound and indeed almost inevitable practice on the part of university trustees. Votes on the part of trustees may be necessary to the execution of plans which originated and have been perfected in faculties; but these votes are merely formal, the real designs or plans proceeding altogether from faculties. In these matters the president, being the presiding officer of every faculty in a properly organized university, has the advantage of hearing the whole faculty discussion and of taking part therein, if he desires to do so. He becomes thoroughly informed on the subject in hand, and is consequently able to present it to the trustees effectively; but he may, or may not, have an author's or designer's interest in the project. Officially he carries to the trustees a project which has received the support of a majority in a faculty or other similar academic body. His personal opinion may, or may not, coincide with that of the majority in the faculty or in the board of trustees. Within the faculty he should carry only the weight which his powers of argument or persuasion may give him, supported indeed by the faculty's own sense of his peculiar responsibility as the head of the institution.

There is, indeed, an influence which an unsuitable president can exert in a faculty if a strong interest in a matter before the faculty, or a natural

predisposition to get his own way, prompts him to do so. He can exhibit so strong a desire and purpose to get the measure under discussion adopted that weak members of the faculty whose promotion he can in some measure control will accommodate their own views to his, and vote as he obviously desires them to vote. Of course a president fit for his place will always wish to learn the real opinions of the members of a faculty on any educational measure which is before it, and will take all possible pains to prevent members of a faculty from concealing their opinions, or modifying them in accordance with his supposed views; for he well knows that it will be very hard, if not impossible, to execute satisfactorily a measure which does not command the real approval of a majority of the faculty. It is well-nigh impossible to give good effect to any measures relating to the functions and duties of teachers, if the teachers themselves do not approve and desire to try the experiment. Only a remarkably self-willed or inexperienced president would try to force through a faculty a measure which a majority disapproved, or could only be brought to vote for by the illegitimate use of the president's power over promotions.

All money questions, then, belong to the trustees, and all educational questions to the faculties or subdivisions of faculties; but the president will have knowledge of both sorts of question and influence in the determination of both sorts. It is not possible, however, always to separate completely money questions from educational questions. Thus, if a faculty or a department advises that certain new

courses of instruction should be added to those already given, or that a whole new department of instruction should be created, a faculty ought not to be able to announce that these proposed measures will be put into effect until the trustees have decided that they have in hand, or in immediate prospect, the money needed to support the new instruction or the new department. Or again, proposals to change the conditions of admission to a college or a professional school in an institution which depends largely on tuition fees always involve a careful consideration of the probable effects of the changes on the income of the university. It is quite possible merely by raising the standards of admission to reduce very much the income from tuition fees. Hence it is proper that the trustees, who are responsible for the property of the institution and for maintaining the right relation between its income and its expenditure, should have an opportunity to pass on any changes in the conditions of admission which may have commended themselves to the majority of a faculty. In the highest function of a university—that of promoting research—pecuniary questions constantly arise, which only the trustees can settle. In what departments can appropriations be most advantageously expended? Granted that from the point of view of science a given appropriation is desirable, is it possible for the university to make it with due regard to the condition of its budget and to a right proportioning of expenditures among the different departments? In all such mixed questions the advice of a competent president is invaluable to the trustees, and is more

likely to be sound and fair than that of any single professor or single department; because he has, or ought to have, a more comprehensive view of the whole field, and no dominating interest in any one subject or department.

Resignations, retirements, and removals are difficult administrative subjects with which faculties and similar academic bodies cannot appropriately deal. Professors are too directly interested in a life-tenure of office without any qualifications or restrictions, and in the maintenance of all customs and practices which contribute to a permanent tenure, to be competent as a class to make inflexible rules to govern retirements and resignations, or to administer rules which permit the exercise of discretion by the deciding authority. Moreover, they are inevitably and naturally moved in particular cases by considerations of friendship, fellow-feeling, or compassion. In consequence it has become the practice in American universities that rules governing resignations and retirements are enacted by the trustees, though not without consultation with professors and faculties, and that the final decisions in all such matters are made by the trustees. Necessarily the president is the adviser of the trustees, and often he prompts or suggests their action. The president, however, as a rule, has no power by himself to dismiss, retire, or bring about the resignation of a professor, and he ought not to possess such power. To possess such authority would be as injurious to the president as to the university. As a matter of fact, the trustees' power to remove professors is very seldom exercised, except in universi-

ties under political control. University trustees and presidents fully understand that the life-tenure of professors is of the highest importance to the efficiency and reputation of all institutions of the higher education, and are always very reluctant to impair or reduce that tenure in individual cases, often neglecting the plain interest of the students on account of this reluctance and the common dislike of making painful decisions. Personal interests and questions of personal fitness or fidelity can not be decided well by vote of a faculty. It is intensely disagreeable for professors to be called upon to decide such questions with regard to their colleagues. In all the university experience of the civilized countries there is no practice or precedent which tends to show that such a method would be expedient. Most professors shirk their duties in regard to resignations and dismissals; and any president who was inclined to be too strenuous in this part of his administrative function would immediately find himself in conflict with his board of trustees. It should be remembered that many university presidents were professors first, and that all of them are more interested in the educational side of their work than in the business side. It is never the president that wishes to reduce the educational authority of a faculty in favor of the board of trustees, unless, indeed, in some rare instance a politician or a business man without educational experience, rather than a teacher, has been made president. Such appointments have always been rare, and are no longer to be expected.

It has been argued that the position of a profes-

sor must lack independence or dignity if the whole body of professors in any given institution does not possess the power to choose their colleagues, their deans, and the president of the institution. This argument seems to be based on a misunderstanding of academic freedom and of the motives which attract able men to the professorial career. The freedom which is essential to sound university life for students and teachers alike is freedom of thought and speech, freedom to seek truth without either hope or fear concerning the possible results, and freedom to live a studious, undistracted life, rich in opportunities to give as well as to receive, to impart as well as to absorb. For most professors administrative and judicial duties are uncongenial, inevitable sometimes but never welcome, and usually rather inconsistent with the scholar's mode of life and with the realization of his scholarly aims. The only kind of administration which the genuine scholar in a professor's chair enjoys, and is fit for, is that which deals with the broad educational interests of the country, or promotes that personal intercourse with his pupils to which every true teacher is willing to give time and thought. In matters relating to the departments of instruction with which they are connected professors naturally desire to be heard, and to have their views fairly and accurately presented to the trustees; and a president on whom the professors can not rely to do this is incompetent and unsafe. Whenever this difficulty presents itself the trustees must invent other means of communication between themselves and the professors—a hard but not an impossible task. Given proper

means of communication with the governing board in the way of suggestion and consultation, it is not at all essential to the dignity and attractiveness of the professorial career that professors should have the right to vote on all university appointments, including that of the president. Indeed, most American professors of good quality would regard the imposition of duties concerning the selection of professors and other teachers, the election of the president, and the annual arrangement of the budget of the institution as a serious reduction in the attractiveness of the scholar's life and the professorial career. They know themselves to be fit to study, teach, and advance knowledge; and those are the things which they wish to be free to do, unencumbered by duties or functions for which they are less fit.

A president who understands his business will make himself the carrier to the trustees of the opinions and wishes of the students of the university and of the younger teachers. In any university old enough to have accumulated a body of traditions, the strongest tradition is usually the subordination of the younger teachers to the older. They have been pupils of the older professors, and have been selected by them for annual appointments; and it is inevitable that they should be under the orders of the professors in regard to the selection of the subjects and methods of their instruction. This subordination can easily be carried to an inexpedient extreme; and the president is the agent through whom it can be mitigated. Under a wide elective system the choices made by students year after year,

choices which often involve selection among the different teachers of the same subject, are very instructive to the president and the deans; and it is through the president and the deans that useful information of this sort goes first to the faculties, and later, if necessary, to the trustees. In performing this function the president needs to exercise great watchfulness and no little judgment. A narrow-minded man, or an impetuous and impatient man, can not perform it satisfactorily; but that only shows that the function is an important one.

A competent president will be sure to represent professorial opinions and desires in regard to the policy of spending on the present generation of students all the available annual resources of the university, without making reserves for maintaining and replacing a wasting plant, such as a corporation whose object is to make a money-profit steadily generation after generation necessarily provides. This is a distinction between a commercial corporation and an educational one which some bodies of university trustees find it difficult to appreciate. While a university should not incur deficits or suffer its plant to waste away through neglect, or its apparatus and materials to be used up without being replaced, university trustees should have a very lively sense that the whole plant of a university, except its grounds and buildings and some of its books and other collections, ought to be short-lived and frequently replaced; and this replacement can best be provided for under the head of running expenses. Most of the accounting which has come into fashion of late years in manufacturing and transportation

companies is adapted only to continuous money-making corporations, and is likely to be misleading if applied to states, cities, and permanent institutions of education, charity, and religion, having no money-making purpose whatever. A university should never borrow money, or have any "liabilities." It should regard indispensable repairs as running expenses; and for improvements and extensions it should count on new appropriations if it is a state university, or new endowments and voluntary contributions if it is an endowed university. Its real estate and chattels should not be carried on its treasurer's books as "assets" at any valuation whatever. They are not salable, and no dividend is to be paid on them. These are policies which are sure to commend themselves to the professors and other teachers and investigators in any American university, and the president will always advocate them with the board of trustees, who, being business men or lawyers, may have somewhat different expectations and desires.

In this country some misconceptions prevail in even the educated public concerning both the university professor and the university president. Some professors have lately been inclined to represent that they are only employees, like operatives in a mill or clerks in a bank, the hired servants of a board of directors and of the president who manages the board. In the imaginations of those who entertain this idea, the president is the arbitrary and unsympathetic employer. This conception of the professor's situation on the one hand and of the president's on the other is as far as possible from

the truth. The competent and zealous professor is in reality a leader and inspirer in whatever relates to the advancement of his subject and the improvement of the young men who come under his charge; the president is never in the position of a military commander or a "captain of industry." He can not serve the university well by the exercise of any arbitrary authority, and as a matter of fact—with the rarest exceptions—he does not possess, or attempt to use, any such authority. There is no place in a university for the implicit obedience of many to one, as there must be in an army, or in a great machine-shop in which safety as well as productiveness depends on obedience to definite rules, close coöperation of each workman with many others, and strict adherence to repetitive routine. Teachers cannot work to advantage under external orders or in rigid frameworks; and productiveness in research can not even be imagined without perfect liberty for the investigator in his work, except as to his pecuniary expenditures. All experience shows that the limit of expenditure cannot be left to the investigator; but this is the only limitation on his freedom of thought and action. The university authorities may, however, reasonably require of every investigator not infrequent reports of progress. These may take the form of papers read before learned societies or before the more popular associations whose object is to advance science and to promote mutual acquaintance among scientists, or else the form of periodical reports made directly to the president or some academic board.

There are no real grounds for any conflict be-

tween sound administrative policy in the university, on the one hand, and professorial interests, or students' interests, on the other. The primary object of university administration is to bring together the best possible body of capable, enthusiastic, and well-equipped teachers, and the largest possible body of appropriately trained, healthy, and ambitious students, and to let them react on each other in freedom. This is the teaching function of a university. The second object of university administration is to promote literary and scientific productiveness in the staff and among the advanced students. Success in this undertaking depends on the individual gifts and working powers of the teachers that the university has assembled, and on the amount of money that the university can afford to spend on research. This is the research function of a university. In neither of these fields of activity is there any place for a university despot of any sort, or for a narrow-minded administrator, who chooses precipitately a way of his own, and then wants to have his way.

University presidents, being accustomed to consider and promote, without any personal bias, the interests of varied departments of instruction or of their own institutions, and of the schools from which their students come, are easily drawn to the study of other public interests, particularly those of a social or educational character. By a natural development they become publicists and useful advisers on the educational and social aspects of legislation and governmental administration.

The work of a good university president is selective, consultative, and coöperative; he works as a

leading member, now of one group and now of another; he has no use for arbitrary power, for he can effect nothing without the coöperation of other devoted servants and friends of the institution; among his colleagues, the professors, he is the disinterested promoter of their interests, so far as they are consistent in his judgment with the general interests of the university and of the higher education, which all admit should be supreme; he is the best type yet evolved of the democratic executive officer who has a long tenure, enjoys public consideration, and can put all his powers to noble uses. It is natural and right that he should have been evolved in the broad field of education.

As the American people learn gradually how to secure good administrative service in their industries and governments, executive positions are created which have tenures, functions, and powers analogous to those of university presidents. Thus, the long-service heads of the numerous commissions and boards of trustees which regulate industries, railroads, and other public utilities, and manage libraries, hospitals, asylums, religious and charitable associations, and public reservations, have often within the last forty years illustrated the same method in public or semi-public administrations which the universities have illustrated in their presidencies; and it is clear that the method has justified itself and secured public approbation.

1911

CAPITAL AND LABOR

CONTENT IN WORK

THE winning of satisfaction and content in daily work is the most fundamental of all objects for an industrial democracy. Unless this satisfaction and content can be habitually won on an immense scale, the hopes and ideals of democracy cannot be realized. Therefore, joy in work should be the all-pervading subject of the industrial discussion; for it is at once motive, guide, and goal. It is only in the less skilful employments of mankind, which are also the commonest, that any question arises concerning the possibility of satisfaction and content in daily work. All the nobler employments give much pleasure. Every professional man, every business man, and, indeed, every person in whose occupation there is free competitive play for intelligence and judgment, takes pleasure, or joy, or satisfaction in his daily work; and his interest in his work does not depend principally on the amount of pay he receives for it. He gets from it a large satisfaction independent of, and in addition to, its pecuniary returns. The real question, then, is whether the satisfactions of the higher employments can be measurably obtained in the lower. On the right solution of this problem depends the whole future of the industrial democracy; for there can

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be no public happiness without content and satisfaction from the daily work of the masses of mankind. Let us then inquire what the sources of satisfaction in work are and must be.

The first source is the pleasure that the natural, healthy man takes in exertion—in using his bodily and mental powers. There is, undoubtedly, a real pleasure in the mere use and exercise of one's powers. All the active sports illustrate this fact. In many of them, the exertion is great and prolonged, and one might almost say that, in any one sport, the pleasure or satisfaction was proportionate to the exertion. In rowing, cycling, "hare and hounds," and the competitive games of ball, including all the varieties of tennis, the effort of both mind and body is strenuous; in hunting and fishing, the effort is not only strenuous, but is apt to be very prolonged; and yet nobody doubts that these sports are enjoyable, or that it is the effort which is in large measure the source of the interest and satisfaction. What is true of the manly sports is true also of manly labor. The next source of genuine satisfaction lies in achievement—that is, in doing and accomplishing something worth while. The satisfaction in having done something well is universal, and comprehends absolutely all kinds of employment. It is not at all necessary that the achievement should be a great one, or that its quality should be fine or artistic. There is satisfaction in digging a ditch and seeing the water of a stagnant pond or meadow drain off through it. I lately saw a group of laborers dig up an elm tree thirty-five feet high, wrap its roots, get it on wheels, carry

it a quarter of a mile, and plant it again in a big hole which they had previously dug with much hard work. The job was intelligently and carefully done, and that large tree is now leafing out, though no earth was brought with its roots. Every man of the group that did the digging looks at that tree with hearty satisfaction. Its safe transplanting was an achievement. Competitive achievement is more pleasurable than achievement without competition, as all the sports prove, as well as all the competitive industries. Competition needs liberty and hope, and a determination toward progress. Therefore, competitive achievement is a precious reward. Even the defeated are glad to have been in the race. Thirdly, the coöperation of a few or of many persons in achieving, as, for instance, in successfully making a valuable product, is a legitimate source of constant satisfaction, particularly if the coöperation have an element of rhythm or harmony. The industries, like the sports, afford innumerable instances of the satisfaction which naturally springs from such coöperative effort. This is one source of the pleasure a sympathetic boat's crew take in their laborious and somewhat monotonous rowing. This is one source of the satisfaction with which all hands on deck will pull together on the braces or the main-sheet. In a higher form of intense and difficult coöperation this is the source of pleasure in the hard work of an orchestra or a great chorus. Human nature responds with joy to coöperative effort toward any productive or creative end. Again, the exercise of intelligence, judgment, or skill in any labor gives

satisfaction. Putting one's mind into one's work, so that attention is keen and every effort well directed, is a prime source of joy in work, no matter what the work may be. It is the fashion, particularly in labor unions, to complain that, in many kinds of work called "manual," there is no joy. That can be the case only in labor of a kind which precludes the exercise of the mental faculties, because joy in the exercise of those faculties is absolutely inevitable. I have been unable to discover any modern employments, even those called the lowest, in which there is not large play for intelligence, alertness, and good judgment. I have never yet observed men seriously and honestly at work who did not seem to me to have ample opportunity for the exercise of both intelligence and judgment. Of course, one often sees in these days men nominally at work who are not using their minds or their wills any more than they can help; but it is not their occupation which deprives them of the satisfaction of working with intelligence and judgment. It is their characters, their personal quality. I have lately received a considerable number of letters and newspaper cuttings, calling my attention to specific employments which the writers supposed to be destitute of this source of joy, and I have been urgently advised to make trial of some of these employments. Every one of them, without exception, seems to me to provide amply for the satisfaction now under discussion. The last comment of this nature, received this week related to the occupation of a motorman on an electric car. This strenuous, open-air occupation seems to me to afford a perfect

illustration of the high satisfaction or content that may be derived from an employment which, at first sight, seems to need muscle rather than mind. The motorman must, indeed, be strong in body; but he must be much more. He must be always observant and on the alert. He must be steady, cool, collected, and ready to meet, with instant decision, a new condition or an unexpected event. He handles a fine machine for which he is responsible, and he must be incessantly watchful for the safety of his machine and of the people in his car and on the street. There is much for him to learn about his machine and the right management of it. If that occupation, under those conditions, and calling for those qualities, cannot yield the fit man satisfaction and content, there is no human occupation that can yield content. In many occupations, another element, which proves a source of frequent satisfaction, is risk, or danger. This is a characteristic of all the manly sports and of many of the fundamental industries, like mining, sailing the ocean, handling domestic animals, quarrying, and lumbering. The danger must be visible and open, not hidden or mysterious, and it must be avoidable by the exercise of foresight, courage and skill. Probably, it is the successful avoidance of the danger which gives the pleasure; although there is an unquestionable pleasure in looking back at some perils which were not altogether avoided, though survived. The natural, human pleasure in adventure is a combination of the pleasure in novelty and the pleasure in risk. The satisfaction in having successfully encountered danger is, for most men, a durable one.

It is experienced when the danger is fresh, and it is always looked back upon with satisfaction, even though extreme labor and hardship accompanied the successful encounter. Any occupation that combines avoidable risks with uncertain productiveness has in it two large elements of interest, and, therefore, of possible satisfaction. Thus, the miner's occupation, in which it is uncertain how much coal or ore a given expenditure of labor in drilling and blasting will produce, has these two elements of satisfaction. Every trading operation has in it the interest of adventure. Finally, those occupations which, like the building trades, present from day to day, or from year to year, new materials, processes, designs, and products—and, in these days, what occupation does not offer many elements of novelty —give to the life of the workman the interest of variety, with new things always to learn. The higher employments all offer a large variety from year to year, and even from week to week; but the lower employments, too, offer to ambitious and alert workmen a large variety of mental and bodily occupation. A middle-aged printer lately said to a friend of mine, "I have been thirty-five years in a printing-office, and still I learn something new about printing every day." Indeed, it has been a characteristic of the last thirty years that all the main industries have been made over, root and branch.

The principal sources of satisfaction and content in daily work are, then, the active exercise of one's powers, achievement or the getting well done something worth doing, harmonious coöperative effort,

putting mind into work or using judgment and skill, successfully encountering risk, making adventures, and mastering novelty and variety.

It is, unquestionably, easy, to have all satisfaction in daily work destroyed by the imposition of conditions which make satisfaction impossible. If labor is pressed beyond the limits of strength and health, content in it is impossible. Any overwork destroys the physical basis of satisfaction in toil. If the hours of labor are exaggerated, so that reasonable time for meals, family life, recreation, and sleep is not to be had, the due satisfaction in toil will not be realized. The conditions of modern urban life tend to develop in the American population an unreasonable haste and stress in both work and play. This haste and stress are quite as highly developed in the higher employments as in the lower; and, relatively to numbers, over-work now prevails in the higher employments more than in the lower, probably because there is more and keener pleasure in the former, and they are, therefore, more liable to be pursued with an inordinate zeal.

For a hundred years there has been going on the substitution on an immense scale of manufactured, mechanical power and machinery for human muscle. The individual workman has, therefore, more directing work to do and less bodily labor to perform. In the modern quarry, or mine, a machine does the drilling; on a large vessel, the sailors no longer hoist the sails or weigh the anchor; the halyards and the anchor-chain are wound up by a donkey-engine, and the cargo is put in and taken out in the same manner. The laborer's function is more and

more the function of directing and watching machines. His responsibility has become greater; his product, multiplied through the machine, is larger; and his need of sound judgment and intelligent decision has become more frequent and imperative. In short, his opportunities for the use of his mental faculties, as distinguished from his bodily, have greatly multiplied; and hence his chances of winning daily satisfaction in the methods above described have greatly increased. Greater responsibility of course brings with it higher wages. Large-scale agriculture exhibits these changes in a striking way.

On the other hand, there are two tendencies in the organization of modern industries which are distinctly adverse to the winning of satisfaction in daily toil. The first is the minute division of labor, which, in some industries, reduces the variety, and therefore the interest, of the workman's occupation; and the second is the monotonous character of the work of tending, day after day and year after year, the same machine making the same product —a monotony which is, however, comparatively rare, inasmuch as, in most industries, machines change frequently, and process and product more frequently still. In general, the variety in the labor of the individual workman has undoubtedly been diminished by the transfer of a large proportion of the population from farm work to factory work; for none of the ordinary occupations in mills or shops afford such variety as farm work affords. The work of the farm-hand changes with the month and the season, and with the hour of the day,

whereas the weather, the seasons, and the time of day have comparatively small effect on the work of the mechanic, the operative, or the salesman. The trade-unions are apt to object to piece-work, because it develops in the work-people a rapid rate of work, a rapidity from which the employer may, in the long run, gain an undeserved advantage. A much more sensible objection to piece-work would be its greater monotony, and its tendency to substitute the good-enough for the excellent as its ideal. So far as piece-work becomes by repetition automatic, it reduces the satisfaction in the work itself to that of competitive achievement, and makes the wages earned thereby the chief reward.

If this description of the sources of joy in work is correct, it follows that several of the doctrines and policies of the trade-unions are not intelligently directed toward increasing the well-being of working men. Let me try to enumerate some of the wrong directions in which the unions are pressing. In the first place, uniformity in the conditions and rewards of labor cannot be an end desirable in itself. The conditions in different industries ought to differ with situation, climate, and the nature of the work. Not only should variety be welcomed among the industries, but in any given industry variety should be welcomed in different places and at different stages of development. The uniform wage, whether called minimum or maximum, is a direct interference with the real sources of satisfaction in daily work. Each individual workman should be free to do his best, both in quality or quantity, and so to win the natural satisfactions

which come from the exercise of skill and judgment, and from competitive achievement. The doctrine of minimizing the day's work through defining it by an inadequate number of bricks to be laid, ems to be set, lead joints to be wiped, or glass bottles to be blown, saps the very foundation of both efficiency and happiness in daily labor. That American labor remains as efficient as it does, even in many unionized trades whose trade agreements contain such unhappy limitations, proves that thousands of union men do not carry into practice this debilitating doctrine. Again, promising novelties in any industry should be welcomed, not hindered.

Thirdly, competition, instead of being treated as an evil, should be welcomed as a source of liberty and progress, both for the individual workman and for the different classes and grades of workmen, competitive achievement affording a wholesome satisfaction in all occupations. Fourthly, the opportunity for zealous, hearty work, with excellence as its ideal, should be earnestly sought by the individual; because with this opportunity comes a keen satisfaction in all the higher employments, and in all the lower employments which, by development and improvement, can be brought to afford such opportunities. This would be the importation into common, productive labor, of the artist's motive and method.

Turning now to the employer's side of the industrial situation, and applying to his function the principles herein laid down, we find that the intelligent employer will best promote his own interests by so conducting his industry that the people who work

in it can win natural and wholesome satisfactions in their daily toil. He will, therefore, take every precaution against overwork, and for the preservation of the health and strength of his employees. He will try to diminish monotony and anxious stress, to secure liberty for the individual workman, and incite him to personal growth and progress, and to promote throughout his establishment competitive achievement, harmonious coöperation, the exercise of skill and judgment, and the introduction of novelty and variety.

For the carrying out of these purposes on both sides of the industrial strife, the new tendency toward small industrial establishments scattered wherever mechanical power is electrically distributed is greatly to be welcomed, because such small establishments, when numerous, promote the independence both of small employers and of small groups of workmen, and easily unite, in the pursuit of a common interest, the employer and the employed, the capital and the labor.

Finally, happiness is a state of mind much more than a state of body, provided that the elementary necessaries for the well-being of the body are at hand. The causes of the prevailing discontent are not in the circumstances of the people, but in the minds and hearts of the people themselves. Good will is only a state of feeling: yet if good will could be established throughout any industrial organization, its economic effects would far transcend those obtained by collective bargaining and arbitration, useful as those methods of combat have proved to be. The industrial democracy needs to rectify its

aims and its ideals, not confining its efforts to improving physical conditions or to raising wages. To promote this rectification, it seems to be essential that both employers and employed should come to understand much better than they do now the conditions under which satisfaction in daily toil becomes not only possible, but, even more than this, natural and inevitable.

1904

THE FUTURE OF TRADES UNIONISM IN A DEMOCRACY

THESE lectures are to deal with the effects of democracy on the future of trades unionism and capitalism, two sorts of powerful combination which have grown greatly in size and strength in all civilized countries within the past twenty years. The specific question which will frequently recur during the progress of these lectures is this: What effect has democratic government had on these two great industrial combinations or associations, and what effect should it have in the future? Incidentally, we shall also touch on some effects which these combinations have had on democratic government itself. The interest of the inquiry is all the greater because most Americans believe that the main source of American efficiency is the high degree of social and industrial liberty which has existed from the beginning in the New World.

All civilized nations now permit the formation of industrial associations, both of workmen and proprietors. So much of public liberty has now been won,—a measure of liberty which was unknown before the nineteenth century, so far as workmen were concerned. Companies of merchants or adventurers, organized for purposes of trade, had long been familiar, like the Hudson Bay

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Company, the East India Company, or the Virginia and North Virginia Joint Stock Companies which were formed in 1606 for the establishment of two colonies on the Atlantic coast of America. The invention of the corporation with limited liability, near the middle of the nineteenth century, was, however, the starting point of the tremendous expansion of capitalistic association,—so recent is the creation of what we now understand by an industrial or financial corporation, with its capacity to bring together and control great masses of capital, and to give employment to multitudes of laborers. It is the legislation of the most democratic nations which has made legal these huge combinations of workmen and of capital employed in the same business or trade. Democracy is indeed responsible for the existence of these formidable combinations, and it is therefore for democracy to make and keep them contributory to the welfare of the democratic masses.

It is to be observed, in the second place, that it is the applied science of the last sixty years which has made possible huge associations of workmen or capitalists, numerous as regards membership, and covering large areas of the national territory, or even the whole of it. The modern means of communication by steam and electricity have made possible quick and simultaneous action by great bodies of men. A common interest, or a common feeling or passion can get expressed in action over half the continent within a few hours. Organized labor and organized capital have both learnt to avail themselves of these facilities with promptness

and completeness. Both are accustomed to act in secret, until an appeal to public opinion becomes necessary; and both combinations desire and seek a monopoly, or as near an approach to monopoly as circumstances permit. Now democracy must always distrust secret organizations which aim at exerting a strong and even an overwhelming influence on affairs which nearly concern any considerable portion of the population. Furthermore, freemen have always abhorred monopoly, and are likely to continue to abhor it. Every American citizen who has something to sell hates to find, on trial, that there is only one buyer for his commodity; and every citizen who wishes to buy something is vehemently opposed to any public or private arrangement which results in there being but one seller. Historical instances of these feelings on the part of men who thought themselves free are abundant, and so are recent exhibitions of the same feelings. Many modern governments carry on manufactures as monopolies in order to raise revenue in an indirect way; but this ancient practice has never commended itself to the American democracy. What the democracy asks of its government is, that it regulate inevitable monopolies, and prevent any others, or, in other words, the democracy expects its government to prevent monopolies from limiting production and determining prices in their own interests without regard to the interest of the community. The labor unions on the one hand and the corporations on the other have created such large and extensive combinations that no power but that of government can deal with them successfully.

Hence the general democratic demand for the governmental regulation of all public utilities, including mines, and of all the combinations—trusts or unions —which deal with necessaries of life.

In order to appreciate the probable effects of democracy on the future of trade unionism and capitalism, it will be necessary to keep in mind the objects and ends of democracy. These are freedom and appropriate opportunity for the individual, wide though not equal distribution of property, and the untrammelled pursuit of the durable satisfactions of life. The effective democratic powers for good are the intelligence of the mass of the people increased through universal education, the efficiency of the people at work through the exercise of individual liberty and coöperative good-will, and the maintenance throughout the life of each individual of the hope and expectation of improving his own, or his family's lot. We shall have occasion to inquire how far trades unionism on the one hand and capitalism on the other are in sympathy with these ethical and economic principles of modern democracy. We shall also have occasion to consider how trusts and unions have alike abused the new powers of association which free governments have conferred on them. Public liberty gave the rights which these combinations exercise, and is therefore the source of the good they do; but public liberty is also responsible for permitting abuses of the power itself conferred. The abuses now too frequently permitted are very serious, because they restrict or destroy the individual freedom of workman or proprietor;

and this freedom is the main source of American efficiency.

The subject of the first lecture is "The Future of Trades Unionism in a Democracy." Trades unionism came into being under undemocratic forms of government shortly after the new developments of mechanical power changed completely the methods and conditions of many fundamental industries. While the human race gained many advantages from the advent of steam-driven machinery and factory organization, great abuses accompanied these innovations. Good and evil for the producing laborers and for the consumers were intimately blended in all the new factory industries. The methods of the new trades unions, organized to improve the condition of the laboring people, were necessarily the methods of fighting, violence, and war. The conflicts of the employed with the employers were often barbarous and cruel on both sides. Nevertheless, the efforts of the unions were gradually successful. Through them higher wages and shorter hours were procured at a time when no disinterested and humane person could doubt that wages were too low and hours too long. This clear success gave the working people confidence in the violent methods employed. The United States was slow to import from England trades unions and their practices, because the industries which required mechanical power and factory organization were developed later here; but when such industries had been established in this country in considerable numbers, and when, moreover, large numbers of persons of foreign birth came to be employed in

those industries, the trades unions became potent in the United States; and for the most part they adopted the same policies which they saw had been successful under more trying conditions in Europe. Gradually new policies, looking toward the creation of a monopoly of labor in each particular trade by the union of that trade, came into use. I invite your attention first to a consideration of these monopolistic policies.

The first is the limitation in the number of apprentices that shall be employed in a given trade, or rather in a given manufacturing establishment. The rules of many unions prescribe the number of apprentices that shall be employed in any industrial or producing establishment in proportion to the number of journeymen employed, and this limit of the number of apprentices is ordinarily far below the number which it would be for the interest of the proprietor to employ. The object of this limitation is to keep down the number of journeymen in the trade, so as to prevent the coming into the trade of a number of persons so great as to affect the rate of wages, or, in other words, to produce within the trade an undesirable competition for employment. With a similar intention, trades unions have in general resisted the introduction of trade schools into public-school systems, and have also been disposed to interfere with the work of private or endowed trade schools. They thought they saw in such schools a danger of an over-supply, from their point of view, of competent candidates for admission to the trades. Of late years, however, the attitude of the unions toward trade schools

has become less hostile than it formerly was, partly because of the ease with which trades unions have in many communities enlisted the graduates of trade schools, and partly because of the steady rise of wages in most trades in spite of the advent of trade school graduates. The policy of limiting the number of apprentices flies in the face of the American doctrine that education should be free to all, and should furnish a useful training for the practice of any art, trade, or profession. Moreover, it is a selfish and monopolistic policy without mitigation. Its object is to keep down the number of workmen in the trade concerned, to raise wages, and thereby to make the product scarcer and dearer. In many unions the rules make apprenticeship unnecessarily long; so that all the instruction to be obtained as an apprentice has been received long before the apprentice is permitted to become a journeyman. The same lesson is given a thousand times, when the youth can easily assimilate its substance and acquire the corresponding skill from only a hundred repetitions. Furthermore, many unions lay down rules which make it hard for a journeyman to become an employer, prescribing, for example, that no one shall become an employer until he is prepared to employ a specific number of journeymen. Such rules tend to stiffen every class or set of mechanics or operatives. Each class is hard to get into, and still harder to get out of; so that the true democratic mobility between classes or sets of working people is seriously impaired. In the useful organizations representing the professions and other liberal callings there is nothing

which corresponds to this stiffening of social classes brought about by trades unionism, and in trades unionism itself there is no need of it. It is a survival of the fighting times of trades unionism. Every fighting organization is compelled to sacrifice in large measure the individual liberty of its members. Herein unionism and democracy are in absolute opposition.

Two other monopolistic inventions have, within years comparatively recent, been adopted by trades unionism, the boycott, and the union label. The boycott is intended to prevent all persons from buying, or even handling commercially, articles not made by union labor; and the union label is intended to support the boycott, and to enable and induce the public to discriminate against articles which do not bear the label. The object of both policies is to secure all the productive labor in a given trade for union men; to this end articles or goods made by non-union men must find no market. The monopolistic aim of these policies is perfectly plain, although it is often denied by labor leaders, who dislike to have the word applied to their own practices.

Any strong union will be very strenuous in resisting any trespasses on what it regards as its own province or field of labor by members of other trades or indeed of other unions. Thus, for instance, if a union man who is putting into a new building the tubes which enclose electric wires should use a hammer and cold chisel to cut a little recess in a brick wall to accommodate the small box through which the direction of the tubing is often

changed, all the bricklayers employed in the building would lay down their tools—the wiring man would be trespassing on the province of the Bricklayers' Union. This policy is monopolistic in the highest degree and, moreover, increases the total cost of every building which requires the services of members of various crafts. It also tends to narrow the field of each trade, thereby diminishing the variety of interest in the work of the trade and the variety of personal capacity to be gratified therein.

Many unions refuse to handle in their respective trades materials made by non-union labor, or coming from factories which are not conducted exclusively on union rules. This policy, if carried out successfully by a strong union which covers a large area, is capable of forcing the manufacturer to unionize his establishment; whereupon the unfortunate consumer is likely to be at the mercy of the manufacturer and the union combined. These monopolistic combinations are often entirely successful in the United States, or in large parts thereof, particularly in the building trades, and their recent successes account for a considerable portion of the great rise of prices which has taken place in this country during the last five years. The manufacturer of plumbers' supplies, for example, makes an agreement that he will sell only to jobbers and to plumbers. The jobber agrees that he will sell only to plumbers. The plumbers are all union men. The owner of a building under construction cannot buy plumbers' supplies unless from some independent manufacturer who is not in the combination. If he buys of such an independent manufac-

turer, the plumbers at work in his building will not touch the materials he has bought. In the district covered by such an agreement there is no competition which is really free. If there are plumbing materials produced under union rules which differ in merit or availability, the owner or builder may have some choice among those various products; but it is easy for the group of manufacturers to arrange prices to suit themselves, and the consumer will probably find himself at their mercy. The root of this serious difficulty for the average consumer is in the policy of the unions not to handle non-union-made materials. It is a strong monopolistic policy which practically destroys free competition. A farmer out on the prairie who with his son can himself screw pipes together and set up a sink or a bowl may be able to buy his materials of independent manufacturers; but the dweller in towns and cities who does not possess the farmer's skill or enjoy his privacy has no defence against the plumbers' monopoly. As a rule, the employing or contracting plumber is equally defenceless.

It would be hard to exaggerate the intense opposition between all these monopolistic policies and the individual freedom in education, in family life, in productive labor, and in trade, which is the object and end of democracy.

The limitation of output is a trades-union practice which combines in an unwholesome way a selfish unfaithfulness to duty in the individual workman with a deceptive notion of philanthropic interest in fellow-workmen. It seems to be based on the idea that the amount of work to be done in

any given trade at any given time is a fixed quantity, and that the smaller the contribution each workman makes to that fixed quantity, the more workmen must be employed to accomplish the total task. Therefore, the less each workman does in a day, the more of his comrades will get employment. Wherever this policy is successfully carried out, the result is that the individual trades unionist does a day's work much below his reasonable capacity, to his own demoralization and the destruction of real good-will between employer and employed. It is impossible for a workman to preserve his own self-respect or his own personal efficiency, if he habitually works for day's wages at a speed below his natural personal capacity. If this policy should be successfully carried out in many large-scale industries throughout the United States, the efficiency of the population at work would be seriously reduced within ten years, and the reduction would be progressive. No man, however well educated, intelligent, and naturally ambitious, can long resist the effect on his own character of working in the way prescribed by many unions to limit output. He will soon become an indifferent, unambitious workman, without any genuine good-will toward either his employer or the public; and the pretended altruistic motive in favor of his fellow-workmen in the same trade will not protect him from this degeneration, because it is vague, uncertain, and selfish for his class, as well as for himself. This limitation of work is the most degrading of all the trades-union doctrines and practices; for it destroys the enjoyment of achieving, and that enthusiastic pursuit of an ideal which

makes work done in an artistic spirit and with good will a durable satisfaction throughout life. It defeats the true democratic standard for a workingman's life—increasing intelligence, efficiency, personal liberty, and coöperative good-will. In resisting to the utmost this doctrine of the limitation of output, the associations of employers are defending democracy, and promoting the prosperity and happiness of the laboring multitudes.

Another trades-union doctrine that has had a very unfortunate effect on individual character is the doctrine or practice of the minimum wage. All members of a union—in the carpenter's or mason's trade, for example—must receive, when employed, a certain wage called the minimum. In practice that wage turns out to be a uniform maximum wage, and it is ordinarily put at a level above the worth of the less skilful workmen, and below the worth of the most skilful; and no distinction is made between the young man who has just been admitted to the union and the older man who possesses a much higher degree of skill. This practice is for the pecuniary interest of the younger and least skilful workmen, who, as a rule, predominate in the union, or at least are its most assiduous members. The first effect of this practice is to deprive the younger members of a union of all motive for improvement. No amount of personal merit can procure for the young member of the union an advance of wages. He receives at the start the uniform wage, and the veteran who is a member of the same union is receiving no more. No effort on his part can raise his wages. The only way in

which a union man's wages can be advanced is through the collective bargaining of the union, and any advance effected by the union will take effect on all workmen, good, bad, and indifferent—so far as employment can be procured for them. No increase of skill or efficiency in the individual workman will avail to increase his income. The disastrous effect of this policy of the uniform wage on the desirable and happy increase of intelligence, efficiency, and good will as life goes on, is perfectly apparent. The contrast between the effects on the individual workman of the employments regulated by unions and the effects of the liberal and artistic professions on the individuals comprising them is striking indeed. It is one of the principal attractions of a profession or an artistic calling that the progress of the individual depends on his own personal merit and industry. For a successful man in these callings the compensation rises throughout life. It may begin small in comparison with the wages of a young unionist in a trade; but it rises soon and much higher. The professional man or the artist has the joy of personal achievement and the rewards appropriate to rising merit. Now every successful artisan ought to win that joy, and analogous, if not equal, rewards. The trades-union doctrine of the uniform wage stands squarely in his way. The union represses ambition for excellence. It is true that labor leaders and representatives of trades unionism often allege that the unions have no objection to the employer's paying more than the minimum wage; but this statement by no means meets the objection to the general policy of uniform

wages, and, moreover, that policy is supported by the limitation of output and by the serious objection made by most unionists to "pace-setters" and other zealous or unusually rapid workers. The fact is that the unions think it necessary to sacrifice individual liberty, and all that comes of it, to the necessity of standing together for a higher minimum wage. Now a true democracy means endless variety of capacity freely developed and appropriately rewarded. Uniformity of wages ignores the diversity of local conditions as well as of personal capacity, obstructs the ambitious workman, cuts off from steady employment those who cannot really earn the minimum wage and interferes seriously with the workman's prospect of improving his lot.

It is high time it should be generally understood that trades unionism in important respects works against the very best effects of democracy. It is the practices of the professions, the higher walks of business, and the artistic callings, which best illustrate the fortunate results of genuine democracy on personal character, or, in other words, the effects on individual character of the utmost liberty under law.

In contending against the uniform wage and the limitation of output, employers in many highly organized industries have resorted to the method of compensation called piecework, and to a systematic subletting to a group of workmen who among themselves make their own bargains, of the labor of constructing some part of the total machine, garment, piece of furniture, or other object,

which is the product of the factory concerned. Either of these arrangements makes it possible for the employer to determine with an approach to accuracy the labor cost of the article he produces, and makes him independent of the union's scale or schedule of wages. Either of these methods affords scope for the meritorious or able individual, and is therefore much to be preferred by the workman, unless the stimulation to the individual is so intense, and the piece or contract work so limited and monotonous as to become unwholesome. Unfortunately there are many industries to which piecework and contract work are not easily applicable. Moreover, the unions, as a rule, oppose the use of these methods of compensation.

The multiplication of trades unions and their strength at last compelled manufacturers to form associations capable of resisting the powerful unions. It was much more difficult to form strong associations of owners or employers than to form trades unions, and it was only recently that the manufacturers' and employers' associations really came into effective existence. The fact seems to be, that neither combination, if vast and successful, is endurable in civilized society without the other. Either alone would be intolerably tyrannical. A single manufacturer, or a single railroad, finds it very difficult to resist the strike or the boycott; and the unions became ingenious in attacking one proprietor or one corporation at a time, or in attacking a public-utility corporation in one city at a time, or the railroads in only one section of the country

at a time. In short, they learned how to conquer by dividing or distributing their attacks.

The necessity of encountering associations of employers which were as widespread and comprehensive as the unions, and fully as strong, led the unions to the invention and development of the joint agreement which is an agreement concerning wages, hours, and conditions of labor, covering a specified period, and made after conference between a union or unions and a manufacturer or an association or group of manufacturers. It has often been said of late that the joint agreement is the real goal of unionism. The capitalist, or the association of capitalists, is forced to deal with the union, and not with individual workmen. The union secures collective bargaining, and is much more vigorous in that bargaining than the individual workman could possibly be. The parties to the agreement are strong and resolute, and yet both dread a stoppage of work. Evidently this sort of negotiation, whatever its outcome, is much to be preferred to destruction of property, fighting between union men and non-union, and the arrest of production, particularly if the industry concerned has to do with necessaries of life or with transportation. In short, the joint agreement is an improvement on industrial war; but its plain tendency is to determine wages and conditions of work on the one hand, and profits on the other, with the least possible regard to the consumers. In the discussion of any joint agreement the fundamental question must always be—what terms can the two parties acting together exact from the community

at large? The two combinations are both monopolistic in desire and tendency. Can they settle their differences by a compromise, and force the community at large to pay the cost? If they think they can, they will; for that is by far the easiest way to adjust their differences and keep the industry going, which is for the interest of both the contending parties. In democratic society, however, the effects of the combined action of these two powerful organizations, of labor on the one hand and capital on the other, can be checked in three ways, which involve the use of no autocratic power, but depend on the voluntary action of the mass of the consumers, which is also the mass of the voters.

The first way of resisting the monopolistic force of such a combination of a corporation with a trades union is the immediate and widespread reduction in the consumption of the article affected by the monopoly. The consuming power of the American people for any given article of food or clothing or building material is distinctly limited, and much more closely limited than people suppose. A considerable rise of prices forces multitudes of the common people to give up using articles to which they have been accustomed, or to reduce the amount they use. Prices easily become prohibitive for a large portion of the population. Cheaper materials thereupon replace the dearer. Thus cheaper and poorer woods replace pine, soft stones replace hard, concrete comes into use instead of brick or stone, stews replace roasts, and cotton fabrics take the place of woolen. This all means that in an intelligent and wide-awake democratic

society, which does not dread but rather likes the new or novel, and is not the slave of tradition, the consumption of any article which has become subject to a monopoly may be suddenly and effectively reduced. Even the most solid monopolies fear the abstinence of the consumer.

The second method of resistance to monopolies in the United States depends on American inventiveness. In this country invention progressively develops new materials, tools, machines, and structures, which impair the value of the stock-in-trade of established industries and trades, and ultimately compel modifications of their plants, products, and policies. Thus, the invention of mercerized cotton and the great extension of its applications in the arts have in recent years equipped the American people to defend themselves against the high prices of silk goods. The mass of the people have replaced silk goods in large measure with cotton goods, made to look and feel like silk. Again, the high wages in the building trades and in the trades which prepare building materials, and the high price of land have developed the tall apartment house and the tenement house in closely built cities where land is dearest, and the wooden three-decker in suburbs. The ordinary American family, whose bread-winner earns from fifteen to twenty-five dollars a week, has thus been forced into much smaller quarters than it used to occupy in its separate house with a bit of land about it. Tolerably effective resistance has thus been made to the rise in the cost of building, and therefore in rents; and this resistance has been

made possible through a long series of inventions and contrivances worked out by architects and builders. The ultimate result—the crowding of the family into a few small rooms—is much to be deplored; but the American consumer has demonstrated on a large scale that he knows how to take advantage of new inventions and contrivances to meet the adverse conditions forced on him by monopolistic combinations of laborers and capitalists acting together under joint agreements. This check on monopoly is, however, less effective in the United States than it is in England; because American law permits an industrial corporation or partnership to buy and pocket any patent which threatens to modify its business; whereas in England the buyer of a patent must make use of it within a reasonable time, or the patent is invalidated. There is urgent need of a change of American law in this respect.

The third democratic remedy for the evils brought upon the community by monopolistic combinations is legislative regulation. This remedy has been brought into use in the United States because of the attempts of monopolistic combinations to control the supply or price of necessaries of life, such as water, light, fuel, food, and steam and electric transportation. The intervention of government has oftenest taken place concerning fuel, light, and transportation; but it is always at hand ready to be called on to limit monopolies, and able to enforce its orders through courts and special commissions. Those perfect monopolies, patents and copyrights, have shown legislators and lawyers how monopolies in general, either natural or artificial,

may best be regulated. They may be limited to specified periods of time or to specified areas, or, as in the case of railroads, to specified rates. Democracy will probably take more kindly to the regulation of monopolies than any other form of government; because it takes more thought than any other form of government for the welfare of the silent but voting masses.

It is under these limitations, then, that any industrial combination, whether of laborers or of capitalists, must work in a democracy. Under earlier forms of government, the worst monopolist was often the government itself. Under democracy, the government may, through its tax laws, including tariffs, become the protector or promoter of some monopolies, but does not itself conduct any monopolized industry for a profit.

A very undemocratic element in the conduct of both labor unions and employers' associations is the secrecy with which the business they think important is conducted. The object of this secrecy is in both cases preparation for war. The labor union which is planning a campaign for higher wages, shorter hours, or improved conditions under which to perform their labor, thinks that the blow they are preparing to deliver must be struck on a sudden without warning to the employing person or corporation. A proprietor, personal or corporate, who is contemplating a lockout or a reduction in wages feels in the same way about the necessary suddenness of the announcement. In either case the blow must be struck without giving the other party time to prepare a defense. In all such cases

the industrial dispute begins in the most disadvantageous manner, that is, with a deep sense of injury on the part of the party surprised. One of the objects of the admirable Canadian Act called the Industrial Disputes Investigation Act was to prevent this suddenness of attack by either party to a dispute. It provides that no strike and no lockout shall be legal until the dispute has been thoroughly investigated by an impartial tribunal, and the finding of the tribunal made public. The Act provides for no arbitration whatever, and depends wholly upon the complete publicity which either party to a dispute may secure. The Act, however, does prevent a sudden strike or a sudden lockout, because the appointment of a tribunal and its action usually requires from four to six weeks. Meantime, public opinion has been thoroughly informed concerning the causes of the dispute, having received the report of a special tribunal appointed in an equitable manner to investigate the dispute with all possible publicity. This Act has now been in force for three years, and the experience of Canada under it is in the highest degree promising. If any party to an industrial dispute exhibits distrust of publicity, the probability is that there has been something in its conduct which it fears the public will not approve; it is not sure of the real equity of its conduct. The whole reliance of this Canadian invention is on the effect of publicity concerning industrial disputes. This accounts for the provision that either party to a dispute may secure the appointment of an impartial tribunal. The consent of the other party is not necessary, though it is

desirable. For preventing industrial warfare, the provisions of this Investigation Act are much wiser than those of any arbitration procedure thus far devised. Experience has proved that arbitration means compromise between opposing claims, and it is uniform experience that the prospect of a compromise exaggerates the claims of both parties. Moreover, there are many industrial disputes which should not be settled by any compromising adjustment. The arbitration method as practised in industrial warfare is an actual promoter of hostile relations and future strife.

A discredited method in industrial strife is the sympathetic strike, or the strike of men who, having themselves no grievance or subject of complaint, abandon their work to support a union or unions in some other trade in which war is going on between employers and employed. The sympathetic strike was used frequently a few years ago as a formidable weapon of offense against employers as a class; but it turned out that this proceeding did not commend itself to the popular judgment; so that instead of strengthening the position of the strikers who had a grievance it really weakened it. The comparative disuse of the sympathetic strike is a good illustration of the effect of public opinion on labor-union policies. The frequent failure of boycotts is another illustration of the real control of public opinion over trades-union policies, when those policies run counter to the average judgment of the democratic masses. The boycotts ordered and maintained by the American Federation of Labor have frequently failed of their object, although it

is only in recent years that the courts have begun to defend society from these outrageous interferences with industrial liberty.

In the United States the so-called general strike has never been attempted, although in one recent instance it has been threatened. Such strikes have been attempted several times in Europe, but usually with some purpose of a reformatory or revolutionary sort. American labor leaders have seen clearly, first, that the general or universal strike is impossible for any length of time, and secondly, that democracy would not tolerate a general suspension of industries with no other object than to promote the pecuniary interest of a single class, or of any set or group of workmen however large.

It has been the greatest reproach of trades unionism that it does nothing to prevent the use of violence in industrial disputes. A hundred years ago, or even fifty years ago, in Europe violence and disorder were the inevitable accompaniments of all strikes, and the public force of police or soldiery that stopped violence and prevented the destruction of property was directed by autocratic or oligarchic governments which represented the opinions of only the upper classes of society. It is very different in this country. It is the great mass of the people in a democracy like that of the United States which resents mob violence, the destruction of property, and the breaking of the public peace; and in consequence a strong public opinion at once begins to set against any striking union or group of unions which takes to violence. It is only a question of time when this public opinion will get expression

in the vigorous use of the public protective force. In remote or sparsely settled regions, where no adequate public protective force exists, violence in strikes may be for a time successful; but it is almost sure to be defeated in the end by a superior force which fights for order and the public peace. In the repression of public disorder of any sort a democratic government will often use the public force sooner and more severely than a despotic or aristocratic government would dare to do. The reason is that the public force used is itself a democratic force, commanding the sympathy and support of the great body of the people. Exceptions to this general principle sometimes occur; but they are almost always cases in which mob violence is used in support of a widespread popular prejudice or in sympathy with some popular passion. It may reasonably be expected that trades unionism will more and more give over the use of violence during strikes; and the reason will be that the democracy is offended by violence, and the cause of the strikers is weakened thereby.

Any one who has been long engaged in the work of teaching will necessarily have a strong sympathy with much of the work that labor unions have done in the world, and with some of the principles which still animate them and make their strength. A teacher or an educational administrator has probably been himself employed under humane conditions, and the work to which he has been devoted is presumably a process of gradually uplifting human society, or that part of it which is within his field of influence. Now the members of trades unions,

as a rule, believe that the work of the unions tends to uplift the laboring masses. They believe that when they engage in industrial warfare to get more pay or more leisure they are also fighting to improve the general condition of their class, though at a present sacrifice. The complaint that the handworker does not get his share of comfort and enjoyment in this world is centuries old, and has often been well-founded; and the efforts which trades unions have made to improve the conditions of employment in all the chief industries which support civilized society are so commendable that society at large ought to be patient with the false theories or bad practices which have impaired or counteracted the good effects of their work, such, for example, as restrictions on apprenticeship, limitation of output, advocacy of the boycott and the union label, failure to punish violence on the part of their own members, and the persistent effort to drive all the workmen in a given trade into the union in order to secure a monopoly of labor in that trade. A further illustration of the mixed good and evil in their work is their administration of their benefit funds. Many unions offer sickness and death benefits to their members, particularly to members who have maintained membership during a considerable number of years. These benefits, however, are sacrificed if the old member withdraws from the union or is expelled. The benefits acquired therefore by long membership in a union may be used and are used as means of discipline to enforce the payment of fines and to prevent withdrawals. Such a loss of rights acquired

by payments made through many years is not allowed in the life-insurance business or in any well-conducted benefit society. Moreover, funds held by unions, which ought to be appropriated to securing the payment of benefits to which their members have acquired a right are often sacrificed in the emergencies of a long strike—that is, they are used for war purposes at the discretion of the officers of the union. Under such circumstances the union will spend any money within its reach for what it calls defence.

The motives of trades unions during the first two-thirds of the nineteenth century might in general have been accurately described as humanitarian; but of late, since high wages and short hours of labor have been secured, the motive most frequently in evidence has been the desire for higher pay. The democracy is not deceived on this point. It sees clearly that the common object of a union in striking is now to secure higher pay by the hour or day, or higher pay for work done in overtime, any vigorous man or woman being perfectly competent to work overtime. The sympathy of the democratic masses with the unions has therefore diminished in recent years, because a selfish pecuniary motive is not so attractive to the democracy as a humanitarian motive. The democracy also perceives that the working of some of the union rules is not humane, but harsh or even cruel. Thus, the prescription of a uniform wage is cruel to the inferior workman who is not worth that wage. He cannot satisfy his employer at that rate, and though he may get spasmodic employment when his

industry is in a prosperous state, he finds himself out of work whenever a downward turn in that industry occurs. In short, the uniform wage is cruel to the journeyman who is not worth it, and to the old man whose capacity is diminishing. The uniform wage is also the means of keeping women out of many employments which the unions think should be reserved for men. The unions will consent to the employment of women only on the condition that women receive as much pay as men. Now many a time women are really not worth as much as men; therefore they are not employed at all.

The belief on the part of the leaders of trades unionism that the length of the day's work should be universally the same has led them to advocate uniform legislation applicable to a great variety of trades as to the number of hours which should constitute a day's work. The fact is, however, that different trades are very unlike as regards the intensity of attention demanded from the workmen and the amount of muscular exertion required of them; so that it is not reasonable that the same number of hours should constitute a day's work in such different employments. The amount of variety occurring in a day's work should always affect the length of the day's work. In the carpenter's trade, for example, or the plumber's, or the motorman's, there is change from hour to hour, or even from moment to moment in the things to be done, whereas piecework in a shoe factory or a machine shop may be extraordinarily monotonous and incessant in its quality. Thus, farm labor,

house work, teaming, mining, quarrying, and many building trades present great variety, whereas tending machines is usually monotonous. Some industries require absolutely continuous operation through the twenty-four hours and day after day, as, for instance, pig-iron furnaces, lime-burning, and carrying vessels across seas. Others can be profitably conducted eight, nine, or ten hours out of the twenty-four. The workmen in some trades have no intervals of comparative repose; in others the day's work is broken by many such intervals. Many industries are much affected by the season of the year, so that they must be very active part of the year, with a long day's work, and comparatively quiescent at another season, with a short day's work. These diversities make it very unwise to prescribe the same number of hours for a day's work in all industries. The reasonable amount of labor for a man or a woman cannot be put in all industries into the same number of hours per day; so that uniformity in that respect is not a rational or expedient aim.

Trades unionism formerly endeavored to prevent the substitution of machinery for hand labor, and to restrict, so far as possible, the use of machinery in all unionized trades. This policy has, however, undergone many favorable modifications, although a belief in it lingers and occasionally finds forcible expression. The introduction of the linotype and monotype into the printing trade was resisted in many ways, direct and indirect, and some of these resistances still linger. An employing printer whose shop was unionized could hardly use a small

number of these typesetting machines, because the unions prescribed that the operator of one of these machines should never himself repair or put in order his machine temporarily disordered. The operator whose machine gave out must lie back and call for the machinist, although he knew perfectly what was the matter with his machine, and could himself rectify it. The employer, therefore, must have use for machines enough to warrant the steady employment of a competent machinist. This was an ingenious application for restrictive purposes of the principle that one trade must not interfere with the province of another.

The unionist demand for the exclusion of independent workmen from shops in which union men are employed has been enforced successfully in many American industries in which the "closed shop" has come to prevail; but in recent years many large employers are making head against this monopolistic practice on the part of unions. The closed shop is supported by two results of experience; the first is the admitted fact that in many trades it is impossible to employ in the same room two sets or sorts of men who are not on good terms. It is easy to spoil maliciously the work of a man whom one wishes to disturb or annoy. Benjamin Franklin in his *Autobiography* points out that in the printer's business it is impracticable for a journeyman to resist the demands of a majority of his fellow journeymen. He refused to treat to beer when he first got employment in a compositors' room in London, but found his position so uncomfortable, or rather so impossible, that he procured

his transfer into a press room, and there treated his fellow pressmen to beer in accordance with custom, although he took none himself. In working underground it is essential that the men who work in the same crew should feel no habitual hostility one toward another. Another support of the closed shop is the preference of some employers for securing through a union the delivery of a certain number of laborers for an agreed-upon period and at a specified price. There are some industries in which this kind of contract has great conveniences, because it promotes promptness and certainty in delivering their product, and enables the employer to reduce to a minimum the pecuniary risks of contracting to make articles which cannot be delivered for some months after the signing of the contract. Such employers prefer to deal not with individual workmen, but with the head of an international union, or with a padrone or other labor contractor. The "open shop" is supposed to be a shop in which union men or non-union men are hired indifferently; but the so-called open shops are, as a matter of fact, often entirely filled with union men, the employers proclaiming a good general principle under the phrase "open shop," but taking no pains to carry that principle into practice. On the part of the more venturesome employers and associations of employers the resistance to the closed shop sometimes takes the form of maintaining shops open only to non-union men. Other manufacturers successfully maintain separate factories or establishments for union men on the one hand, and for non-union men on the other; so that they can give

employment to both classes of workmen—but keep them separate—and observe year by year which sort of labor produces the best results. It is unnecessary to say that the closed shop is far from being a democratic invention. It is a means of promoting the interests of a certain group or class against the interests of the mass.

A characteristic policy of trades unionism has been to prevent competition in the trades it controls. This is, of course, a part of its monopolistic policy. This policy has been supported in the educational and philanthropic world by much denunciation of competition in general. Many people, indeed, have talked about competition as an evil which ought everywhere to be resisted and prevented. Respectable business men have thought it right to defeat the attempts of governments, corporations, partnerships, and individual owners to get competitive bids on work to be done by contract. It has been asserted that competition was cruel and also likely to put into action men's most selfish and hateful passions. Now the fact about competition is that it is a prime means of improvement, not only in industries but in the development of personal character. Competition is the great revealer to the individual of his own power and capacity. To know himself is impossible without active competition with other people. A nation protected from competition will soon prove itself unprogressive, sure to decline when its progress comes to depend, not on undeveloped natural resources, but on the trained skill and capacity of the population. In family, school, and college, gen-

erous rivalry and emulation are wholesome and animating forces. So they are in the national industries. To defeat competition in any way is therefore to inflict a serious injury on society at large.

In looking forward to the future of trades unionism in a democracy it is interesting to imagine the permanent functions in a wisely conducted union. The unions are sure to continue to exist; for the desire among men of the same calling to form sympathetic associations to promote their common interests seems to have become well-nigh universal. What policies will remain when the unwise policies have been done away with by intimate contact with free institutions, and by growing experience of the precious results of industrial and social liberty? (1) Wherever a sentiment of mutual confidence exists between employees and employer the discipline of a factory or shop can safely be entrusted to an association of the employees as regards complaints, fines, promotions, and even dismissals. It is reasonable that the working regulations in a factory, mine, railroad, or shop, should commend themselves as just and necessary to the employees who are required to submit to them. (2) The unions will in many industries exercise the right of collective discussion and bargaining concerning wages, hours of labor, shop rules, and provisions for the health and comfort of the work people. All these matters are fair subjects for discussion between owners or managers and workmen, provided that the discussions regard always not only the improvement of the workmen's condition, but

also the improvement of the product of the works in quality or quantity, and the maintenance of a stable and profitable business. (3) Unions could perform a valuable function toward society as a whole by urging and procuring the utmost publicity concerning industrial conditions and results, through the publication of annual reports to government on that subject. In all the industries which employ great numbers of people, particularly if they deal with the necessaries of life, the public at large has a right to complete information about both processes and results. (4) The unions might make it their prime business to secure training for their trades at public expense, to develop the skill of their members, and to classify them according to experience and skill, promoting in every way the adoption of a wage rising with age and merit. (5) The unions might be active in promoting cooperative good-will from bottom to top of the factory, mill, or works in which each union is interested, inculcating earnestness and alertness in work, a steady profit for capital and management, and a prevailing spirit of liberty, generous rivalry, and justice. With such functions the union might be fairly expected to contribute greatly not only to the happy development each of its own trade, but to the contentment and productiveness of industrial society as a whole. They will in time cease to resist incorporation, to act secretly, to break contracts, to seek monopoly, to restrict output, and to oppose industrial education. They will trust to discussion and publicity, and have no occasion for fighting of any sort. Far from trying

to arrest or destroy industries, one of their strongest interests will be to keep all the national industries moderately profitable, and therefore continuous and free from serious fluctuations.

1909

THE FUTURE OF CAPITALISM IN A DEMOCRACY

The public liberty which procured for workmen the right of combination or association secured to capitalists the same right. Now capital is more mobile than labor and more readily concentrated in the hands of a few leaders. Hence, associations of capitalists in corporations, trusts, and syndicates have more fighting force than unions in a serious contest, and are more formidable in democratic society. The unions, though secret, are after all governed by a majority vote, and by officers elected for short terms; the capitalistic organizations tend strongly to oligarchic methods and practices. The individual capitalist, however, or the single manager of an agglomeration of capital, is apt to value his individual liberty of action much more highly than the single workman values his measure of liberty, and accordingly effective capitalistic associations came into existence much later than effective trades unions. Indeed, as has already been pointed out, capital was compelled to organize in extensive combinations by the comprehensiveness and strength of the labor unions. When once organized, however, the capitalistic associations develop greater fighting power than the trades unions. They can better endure a stopping of income; they

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can avail themselves of new inventions or discoveries and they can enlist the protective forces of society against the violations of public peace and security which seem to be the inevitable accompaniments of industrial warfare on any considerable scale. In short, in carrying on industrial war, corporations, trusts, syndicates, and other capitalistic associations have decided advantages over labor trusts or combinations. The possession of these advantages on the part of capitalists, however, tends to make the general public sympathize with the weaker party in the industrial strife, and this sympathy is often a determining consideration in the ultimate settlement of a specific conflict. To be sure, the sympathy of the public may be misdirected, but that misdirection may not prevent it from being effective, particularly in short though grave contests. It is, therefore, for the interest of capitalistic combinations to consider how they can win and keep the confidence of a democratic community. Let us then consider first what the democracy demands, and is likely to demand, of capitalists, singly or in combination.

The first thing the democracy expects of its capitalists is sympathy with democratic ideals, and the consequent abandonment of autocratic and feudal-system ideals. It also expects of capital a rational altruism, or at least an enlightened egotism. To the questions of the selfish or narrow-minded financier, manufacturer, or merchant—"May I not manage my own business as I please; may I not do what I will with mine own?"—democracy answers "No." Democracy maintains, on the contrary, that who-

ever conducts a large business which requires many workmen has a direct responsibility to society as a whole for the humane conduct of his business. He becomes responsible for the health and cheerfulness of thousands of persons. Democracy means to magnify and enforce this responsibility of the capitalist. It will not trust the welfare of thousands of families merely to the capitalist's possible acceptance of the opinion that humanity is true economy, and that healthy and cheerful laborers are the only efficient and economical ones. There is a mass of modern legislation in all the freer countries which bears witness to the democratic intention to enforce on employers humane conditions of employment. All the legislation relating to the number of hours in a day's work, holding an employer or owner liable for the accidents which happen to people in his employ, prescribing the cubical space to be allotted to each workman in the shop or factory, prohibiting the use as shops of cellars and rooms without windows, insisting on the provision of fire-escapes and similar precautions, and limiting the work of women and children, bears witness to the strong democratic purpose in this regard.

The supremacy of the collective right over the rights of the individual owner or proprietor is recognized in a great variety of modern legislation, which interferes with the liberty of the individual in the interest of the mass. Democratic legislation insists that dirty foods shall not be manufactured, or, if manufactured, shall not be sold; that impure drugs shall be neither made nor sold; that the sale

of patent medicines shall be in some cases prohibited, in others regulated, and in still others permitted only with a label which gives the composition of the medicine. Nowadays an individual owner cannot even build his own house in a city or suburb just as he chooses. He must conform to the local building laws. In certain parts of a city, for example, there must be no wooden structures. In the wooden structures permitted in suburbs, precautions specified by statute must be taken against the communication of fire. All wiring and plumbing in new buildings must be made satisfactory to public inspectors. Democracy limits closely the freedom of the individual capitalist in building his house, his shop, or his factory; and the capitalist has already accepted many such limitations on his individual liberty. It is altogether likely that in the future democracy will go much farther in these respects, in order to protect the interests of the mass of the people against the adverse interest of the individual producer or manufacturer. The milk industry well illustrates the tendency of democratic society in these respects; for it is more and more controlled, supervised, and regulated, and with good results on the public well-being. Capital, as represented by the farmer and the middle-man, accepts this public control. Democratic legislation is always finding new ways of protecting the welfare of the mass of the people against injuries proceeding from individual capitalists or from capitalistic associations which carry on productive businesses capable of doing injury by their products or by-products to the population as a whole, or to some large portion of

the population. Thus, the fouling of streams and ponds by sewerage or by the rejected materials of factories has been effectively controlled in many States of the Union by legislation which strongly commended itself to the democracy; and the offenders themselves no longer claim that they have a right to do such mischiefs. In short, individual capitalists and capitalistic associations recognize the fact that in democratic society they must take account of the influence of their acts on others.

Another democratic ideal which democratic society may confidently be expected to enforce in the long run on both capital and labor is resistance to monopoly. Democracy is demanding of capital in plainer and plainer terms, first, that it should not seek a monopoly of its own, either by open force or by indirect means, and secondly, that it should resist the monopolies of the different kinds of labor which trades unionism aims at creating; because every labor monopoly abridges seriously the just liberty of the individual workman. More and more in this country capital recognizes the justice of this demand made by democracy. In the case of inevitable monopolies, like the right of way on public highways, or a complicated telephone exchange, or a useful combination of widespread telegraph and telephone lines, or a widely distributed hydro-electric power generated by a single waterfall, democracy intends that the management of that inevitable monopoly shall be regulated by the democratic government in the interest of the whole community, or of the consumers of the monopolistic

product; and more and more capital itself recognizes the justice of this democratic demand in all the freer countries. Thirty or even twenty years ago it was not uncommon for a city or a state to grant to a corporation a perpetual franchise in the streets of a city or the highways of a town; and it was urged in defence of such gifts made in perpetuity that capital could not be induced to provide desirable transportation facilities, or the gas or electric plants needed by urban communities for the best forms of lighting, or the facilities for convenient communication by telephone unless the corporation or company providing such facilities received a franchise in perpetuity. The collective interest of the democratic community has now so completely asserted itself with regard to the occupation of the streets and highways by monopolistic corporations that capital no longer expects to be given perpetual franchises. It has been found possible to raise the money needed for such enterprises on charters limited to a definite period like twenty, thirty, or forty years.

The democratic doctrine that neither capital nor labor should seek monopolies involves the maintenance of competition; but the democracy, while recognizing that competition is indispensable to progress in education, in industries, and in commerce, does not believe in competition without limit. It distrusts the competition which is pressed to the abandonment of profit. It perceives that the competition which is essential to freedom and progress may be maintained without hostility to competitors or destructiveness. As the President of

the United States Steel Corporation expressed it at a dinner given by an association of coöperating and competing companies or establishments in the iron and steel industries; "You believe in competition, but not hostility; in rivalry, but not antagonism; in progress and success for all, but not in the punishment or destruction of any." This recognition by capital of the true democratic doctrine of competition over against monopoly is a striking manifestation of the effects of democracy on capitalism.

One of the most intelligent and far-reaching of democratic ideals is the ideal of an improving lot throughout life for every faithful workman and good citizen, a lot improving as regards earnings, comfort, and the consideration in which he is held by his fellows. Democratic society, valuing this ideal, insists and will insist that capital shall promote it, and advance toward it in all its dealings with labor. To carry out this ideal of the democracy will require much good planning and invention on the part of capital, particularly in the highly organized industries which use machinery and mechanical power. The workman who hopes to improve his lot throughout life must see before him the prospect of a rising wage. He must not receive at twenty-one as large a wage as he can earn at forty or fifty. He must see clearly from the beginning that he can improve his earnings and his condition by being intelligent, zealous, and inventive at his work. He must see that every improvement in his own personal skill or capacity is likely to improve his earnings and the respect in which he is held by his employer and his comrades. He

must feel sure that all the conditions of his productive labor favor an upright life on his own part and the attainment of happy family life. He must have good grounds for believing that, with good health and no more than the common exemption from calamity, he can himself command an improving lot and an honorable career under the established rules and conditions of the industry to which he has chosen to devote himself.

Under the existing conditions of the great industries, and particularly of the mechanical industries, capital must make possible the realization of this democratic ideal, if democracy and capital are to be thoroughly reconciled. It is capital that nowadays must provide systematically a rising wage for the individual workman, carry on a continuous sorting of employees with advancement for the profitable employee, make provision for prolonging the full earning capacity of the individual workman, and for keeping at work in appropriate ways employees whose productiveness is declining through age or infirmity. To do this requires, first, an invention of methods capable of yielding these results, and, secondly, a constant supervision intelligent enough and humane enough to win these results on an immense scale and yet through just dealing with individual workmen. This sort of action is within the competency of capitalistic organizations, independently of government, or trades unions, or any other social power capable of exerting a pressure on large-scale employers. In the future, capital, when under intelligent direction, is likely to share the democratic interest in the wel-

fare of the mass of the population, and therefore is likely to devote more and more attention to the realization of the democratic ideal of an improving lot.

One element in an improving lot is a sure provision, gradually made, against premature disability and the probable infirmities of age, a provision which begins to be made in early life, and is secured by long and faithful service. Some parts of the public service and many semi-public and private corporations are already providing such means of protection against calamity and infirmity through pension or annuity systems; and such provisions will soon be regular parts of the conscientious employer's function, whether the employer be government, corporation, or partnership. The methods of making this systematic contribution from capital to the welfare of the employee have already been worked out in Europe. They, of course, present a considerable degree of variety, because of the different conditions of the industries in which they are applied; but the best and most generally applied method seems to be the provision of an annuity after a specified number of years of service, an annuity purchased with money withdrawn during a long period of years from the wages of the employee, increased by a direct contribution each year, or by contributions at stated periods, from the employer, and kept at compound interest in individual accounts. This method cultivates in the employee the habit of saving a portion of his income, gives him a comfortable sense of security for the future, and increases his desire to earn a rising wage. It

also makes it his interest to remain long in the service of the same employer, and to contribute in every way in his power to make the business of that employer stable and profitable. The contributions of the employer to the fund which buys the annuity are an essential part of this system. Without them the annuity purchaseable at the end of a long term of service would be too small. Moreover, the contribution of the employer is just, because he will gain much from the satisfactory working of such an annuity system. In the upper grades of a service which is not subject to ordinary business risks, and which maintains long probationary periods before admitting to its permanent places, the direct pension system is to be preferred to an annuity system; but in industrial employments the annuity method with contributions from both employer and employed is more generally and securely applicable, and has decided advantages in regard to the development of sound independent character in working men and women by the thousand and the hundred thousand. This is a field for the best kind of democratic coöperation between capital and labor.

Another ideal of modern democracy is universal education, education for every child, and education all through life, and not during the school age, or the school and college age alone. The national industries and politics give far the greater part of the education which ordinary citizens receive. It is of little avail to bring up children well through good schools if they are to be stupefied by monotonous and unimproving labor as soon as they enter upon the industries in which they are to earn their liveli-

hood, and demoralized by low politics as soon as they can vote. Hence the grave responsibility of capital for the education of the masses in a free country. The managers of great industrial establishments can be quite as directly and strongly teachers of the people as the schoolmasters and college professors. The responsibility of rich men and corporations for the ethical training of their employees grows heavier and heavier with every new generation that comes forward into the factory system. Well-managed factories, railroads, mines, and shops are capable of providing admirable training in obedience, neatness, temperance, courtesy, fidelity, and honesty. In all urban communities this ethical training through the industries of the people should succeed the training in the public schools. Capital, helped by skill in industrial management, now supplies a great part of this training for the mass of the urban population; and in the future under democratic government capital will do more and more of this admirable work, and will do it better and better. The possibilities for educational improvement in the mechanical industries are very great. The extreme division of labor and the prevailing use of mechanical power have reduced the educational effect of the single workman's job by making his actual performance monotonous and in a high degree repetitive. Capital aided by skilful management must contend against this evil for the individual, which has accompanied an increase of productive power highly profitable to the community as a whole. To invent the means of giving varied and progressive work to the individual work-

man, while utilizing machinery to the highest degree possible and developing coöperative simultaneousness in producing each of the many parts of one complex whole, is the important task of the manager of corporate capital in the future under a democracy. In this way capital can become a democratic agency for making the great body of the people employed in the national industries more intelligent, and righteous, and happier.

The democracy of the future is likely to force on great agglomerations of capital a complete publicity as to their doings and their results; and through this publicity capital may expect to obtain a degree of security against suspicion and injustice which it has never yet enjoyed. The argument in favor of publicity for the receipts, expenditures, profits, dividends, and maintenance and depreciation charges for corporations to which public law gives the immense advantage of limited liability, is irresistible. Already the justice of this publicity is well recognized with regard to fiduciary companies and public franchise companies, including all those whose principal function is the transportation of persons and goods. The principle is not so well recognized or so extensively acted on with regard to manufacturing companies; but within the near future this principle will probably be extended to corporations of every nature which employ large bodies of men, and which are under the frequent necessity of procuring new capital in large amounts from the public. In a democratic society it is emphatically the interest of the corporations themselves to make all their doings public, for the reason

that by so doing they will avoid distrust, secure confidence, and make plain their educational function, and their indispensableness as purveyors of opportunities for steady productive labor for a large portion of the population. The industrial warfare that has been going on for more than three generations of men has obscured the right relation between capital and labor, when it has not actually established wrong or contentious relations between the two indispensable partners in production; and much of this very injurious obscuring of the good and developing of evil has been due to the secrecy with which capital has endeavored to envelop its operations. Democratic society ought to be enabled to witness all the admirable effects of massed capital intelligently managed. Under such circumstances the democracy will not be jealous of or averse to reasonable profits for capital. A large proportion of the democratic mass become themselves capitalists—that is, they own their houses, or their farms, or a deposit in a savings bank, or some shares in a railroad or an industrial corporation. This wide distribution of property is the sure defence of the American people against Socialism.

It is a mistake to suppose that the democracy dislikes rich men, provided it believes their riches have been honestly and fairly acquired. The democracy is beginning to see, and will soon fully understand, that inequality, not equality, of possessions is the inevitable result of freedom. Democracy will not interfere in the future with the pursuits of the rich man. It will approve or appropriate splendors in the private life of rich people, such as galleries,

libraries, yachts, equipages, and great houses and estates. Indeed, the actual democracy of to-day positively dislikes a stingy rich man, and approves of the free-handed rich man who spends liberally on his family and his household, provides for himself and his friends refined pleasures, and gives away money for good objects with generosity and a personal interest in the recipients. Capital which buys and sells fairly and publishes all its doings has nothing to fear from democracy in the future. On the contrary, it has much to gain from a thorough publicity in regard to all its proceedings. At present the public is far from comprehending how rapid the destruction of capital is in the great modern industries, how much of the accumulated savings of each generation is destroyed by fire, by wear, by the substitution of improved machinery for that actually in use, and by thoughtless waste. Knowledge of these incessant destructions should be brought home to the democracy; so that they may realize what the pressing need of new capital means in all great undertakings, and how much intelligence and energy must constantly be brought into play to secure the new capital needed, and to make use of it to the best advantage.

In another respect capital will derive great advantage from publicity in accordance with law. If accompanied by sound public accounting, it will tend to make profits steadier and business therefore more stable. This greater stability or steadiness is a great object for capital as well as for labor. For the employees the stability of an industry means steady work, and that steady work is a great

moral as well as material object. In many industries the mass of the laboring people already perceive that it is their interest that the capital necessarily employed in the industry should receive a steady and adequate return. Nobody likes to work for a person, firm, or corporation whose business is fluctuating and insecure. The employer must have a steady income, in order that the employee should feel a comfortable security for his own earnings. In the absence of publicity, employees may suspect their employer of making an unreasonable or unfair profit at their expense. Under a régime of publicity there would be no possibility of this distrust or suspicion, and all employees would wish for evidence that their employer was doing a sound and profitable business. Already some American industries in which strict accounting and a moderate degree of publicity have been introduced supply evidence that the employees desire that the capital invested receive a fair return. Thus, railroad employees are inclined to resist unreasonable reduction of passenger and freight rates on the railroads where they are employed. They prefer to work for a railroad which earns a profit, and whose stock has a good standing in the market. In short, publicity concerning the management of corporations and concerning the use made of other masses of capital is not only essential to the abolition of industrial strife, but also to the establishment of right coöperative relations between capital and labor; and from that publicity capital as well as labor would reap large and solid advantages.

When the capitalist class as a whole is strongly

influenced by the desire to promote the real welfare and happiness of the workmen they employ, they will invariably take thought for the means of providing their workmen with permanent homes which are not only wholesome, but cheerful, and suitable for the bringing up of a family. This provision means much more than the building of good cottages, although that is an essential feature of it. It covers a careful layout of the manufacturing suburb with good streets well-paved, well-lighted, and provided with serviceable sewers and a trustworthy water supply. It means an adequate number of playgrounds and public gardens. It means also contributions to schools, churches, and buildings for recreation and social enjoyment. It is not expedient, however, that the same corporation which owns and carries on the mill, the shop, or the works, should also own the houses occupied by the workmen. Either the workmen should be encouraged and helped to own their houses, or a separate corporation should build the houses and lease them to the workmen. Moreover, houses should never be let to workmen at rents which do not yield a fair return on the capital invested in the houses. If rents are below real value, the owners are either exercising charity towards their tenants, or they are substituting an indirect payment of wages through a reduced rent for payment in cash of the wages earned. Either course of conduct is in the highest degree inexpedient. Self-respecting workmen do not want charity, and they greatly prefer the direct payment of their full wages to any indirect payment of a part of them.

Much of the so-called welfare work now done by corporations, partnerships, or persons who carry on large industrial establishments, is partially vitiated by the apprehension on the part of the employees that it has a charitable or patronizing quality rather than a real economic value. As a matter of fact it is emphatically the interest of the employer to contribute in every possible way to the keeping of his establishment wholesome, tidy, and cheerful. It is his interest to do so, because thereby his working force is made more efficient. In democratic society capital and labor should be absolutely of one mind on this subject; but to this end it must be distinctly understood on both sides that welfare work is not only a matter of good will and humanity, but also an effective mode of promoting efficiency and productiveness.

Interference with steady work by bad financial management, by insistence on exercising the power of instant dismissal, or by making arbitrary dismissals for no assignable cause, are very serious mischievous influences which may proceed from unwise employers. The unnecessary closing of some works belonging to a syndicate or trust, in order to increase the profits in other works selected to be maintained, is another grave injury to employees, because the apprehension of such closings tends to prevent the employees from acquiring permanent homes and local attachments. It is impossible for any factory or shop to build up a trustworthy and permanent set of skilled employees, if there is no certainty that the factory or shop is itself to be permanent. In all the higher employments, such

as those furnished by well-established banks, insurance companies, railroads, and mills, the employees may reasonably feel that the employer is a durable or permanent one, and this sense of security is a large element in their well-being.

A frequent cause of contentions between employers and employed is the lack of a proper system throughout the employer's establishment of dealing with complaints and grievances. The prudent and just employer will always be careful to provide his employees with ready access to a disinterested official whenever the employee feels that he has been unjustly treated by his immediate superior, or by any of his mates; and there should always be an appeal from the decision of the first official, to whom the complaint is brought, to a higher officer. In many well-conducted commercial and industrial establishments it has already been found possible to refer complaints and grievances in the first instance to a committee chosen from the employees by the employees. In some instances the final decision on complaints is given by such a committee. This is a democratic method which is desirable in all industries in which the necessary discipline can be maintained in that manner. There are unquestionably some industries which require such a high degree of coöperation and such a strict discipline that it would not be safe to give final power for the adjustment of complaints and grievances to a committee of the employees, unless that committee contained several grades of employees. Recognizing clearly the fact that the discipline needed in different industries must necessarily have different degrees

of strictness and inflexibility, capital will still find ample room for a large increase of considerate dealing with complaints and grievances, and will find its interest in accepting to the utmost possible limit democratic ideas on this subject. In particular, it is almost invariably wise to procure the assistance of the employees in making shop regulations, because the working regulations of an industrial establishment may be so conceived—indeed they often are—as to kill the spirit of coöperation and loyalty between employers and employed. The capitalist who really desires to secure content and good feeling throughout his establishment will always consult his employees frankly and freely with regard to shop regulations. Such consultation is as much his interest as theirs. On the other hand, special instances of effective loyalty and good will among employees should always be promptly noticed and rewarded, as should also be inventive contributions to the intelligent conduct of the works or of any department thereof.

Much has already been said of the educational function of managers of great industries. There is an important part of this educational function which is not always thought of in that way, namely, the protection of the mass of employees from temptation to do unfaithful work, or to rob the employer by wasting the time he pays for, or by pilfering from the establishment. It is the bounden duty of all employers to protect the people they employ from all these temptations to wrong-doing. In particular, all employees who of necessity handle money belonging to the employer should be pro-

tected against the temptation to take some of it. It is the duty of the employer to provide every possible restraint and check on those dishonestly inclined, and every possible means of demonstrating and maintaining the honesty of the upright. Cash registers and all other contrivances for recording audibly and visibly cash receipts, time clocks and watchmen's clocks, and all methods of accounting for the exact number of tickets sold, for pieces of goods issued, or for the daily expenses and sales of traveling agents, are means toward the discharge of this duty of employers to make stealing and unfaithfulness difficult if not impossible, and to give the faithful man the means of demonstrating his fidelity. For similar reasons it is the duty of employers to provide an adequate amount of supervision of the daily labor of their workmen, and to resist strenuously all tendencies towards shiftless, sluggish, uninterested, and therefore inefficient, labor. This is a duty towards the employees themselves, and not merely towards the proprietors or shareholders whose capital is employed in the business. All this is only one application of the general democratic doctrine that capital should take thought for the true welfare of all the men and women it employs, and should therefore promote steadily the honor and fidelity of all its employees.

It is interesting to note that the true principles of satisfactory employment in the great national productive industries, such as the textile, mining, and metal industries, are those which already obtain in the highest employments, such as the learned and scientific professions, and the professorial func-

tion in colleges and universities. In those occupations one finds the possibility and probability of establishing a permanent home and family life, of obtaining an increasing income as life advances, of winning an improving lot, of profiting by one's own intelligence, alertness, and fidelity, and of exhibiting loyalty and good will at work, and so obtaining an increasing consideration among one's fellows and employers. These being the very things which make the higher occupations desirable, they must be the things which would make the lower occupations more desirable. It is only by the combined efforts of capital and labor, working harmoniously to ethical and democratic ends, that this result can be attained.

In order to be truly serviceable in the best sense to democratic society, capital must not only abandon monopoly seeking and uncontrolled monopolistic management itself, but must also support democracy in its resistance to monopolies in general. The most dangerous monopolies for democratic society are the monopolies of all the labor in a great variety of trades, monopolies which have come into existence on a formidable scale within recent years. They are doubly formidable because when successfully organized they not only control prices, but also admission to the trades. It is the duty, therefore, of capital in a democracy to resist steadily the monopolies of labor created by trades unions, and to deprive those monopolies of the means and instruments through the use of which they obtain such monopolistic powers. These means or instruments are the closed shop, the boycott, and the

union label. It is in the interest of democracy itself that capital should oppose these monopolistic tendencies of labor; for the strongest and most comprehensive desire of democracy is for the progressive development of freedom for the individual, and of free institutions, and the thoughtful democracy of to-day accepts absolutely Louis Pasteur's definition of freedom—a state in which every one is permitted to develop freely and to apply his utmost powers.

Modern democracy believes also that every person can and should promote the interests of all while seeking his own, and that all can and should promote the interests of each. Democracy believes in the free pursuit of natural happiness and durable satisfactions; but that free pursuit becomes impossible if the productive labor of the community is divided into rigid monopolistic groups, which limit admission to the several trades, control prices, and at pleasure order their members to stop working. The mass of the consumers are not in condition to control effectively the policies and movements of monopolistic labor organizations, because they are an unorganized mass. Capital through its numerous firm organizations can effectively resist labor monopolies, and should do so in the interest of the consumers and of the community at large. In order to resist effectively they must appeal to public opinion through the best channels of publicity, and must bring into play the slow-moving forces of courts and legislatures. In taking such measures capital should be recognized as the

friend and servant of democracy—that is, of freedom and the rights of man.

The resistance of capital to labor monopolies is already manifested in several different ways. In some industries it is possible to maintain successfully the open shop—that is, shops or works in which union men and non-union men can work successfully side by side. In other industries it is possible for trusts, corporations, or partnerships, to maintain unionized factories or works, and also factories or works having the same product in which all the hands are non-union, each sort being in competition with the other. In other words, the same owner may carry on some unionized shops or factories and some in which all the labor is non-union. This method has the advantage of permitting the owner to find out in the course of years which sort of labor is the most profitable—a question concerning which there are many opinions or guesses, but few facts based on long experience. A third mode in which capital can resist labor monopoly is also already in evidence. Because of the present wide distribution of mechanical power through electricity, and of the very common use of the telegraph and telephone, manufacturers are much freer than they used to be to establish their "plants" outside of cities and in the open country, where the men and women who work in the factories can make permanent homes and have a more wholesome life than is possible for operatives in crowded cities. A manufacturing population placed in the country is much more likely to be independent and frugal, and to develop strong local attachments,

than a population crowded into tenements and city streets. The spreading out of a manufacturing population over large areas under the leadership of capitalistic associations will in time build a strong defence against labor monopolies.

This doctrine of the duty of capital to resist the monopolistic features of trades unionism assumes that trades unionism no longer needs to resort to strikes, attacks on non-union men, boycotts, and union labels in order to obtain fair wages, reasonable hours of labor, and the wholesomeness of the places where work is done. Publicity will accomplish these and all other reasonable ends which trades unions have proposed for themselves. In these days the object of the monopolistic policies of trades unions is to get higher and always higher wages, in short, to make more money; but so far as this object is a reasonable one, it can best be obtained through publicity and through the development of a truly coöperative spirit between capital and labor.

That democracy will in the future take all necessary steps to secure as far as possible the welfare of workmen in all the great industries of the country may be safely inferred from what democracy has already done in that direction. It has already imposed wise limits to the hours of work of men, women, and children by the day and the week. It has passed laws securing adequate ventilation in mills and shops, proper sanitary arrangements, guards for dangerous machinery, and seats for workpeople who can sit at their work. It has made employers responsible for injuries to employees,

and has thereby created a new branch of insurance, casualty insurance; and the managers of this new insurance business employ numerous inspectors of boilers, engines, elevators, fly-wheels, and machine tools, and distribute information about safety devices and the means of preventing accidents. To be sure, the United States is far behind Germany in regard to workmen's compensation insurance; but this is only due to the comparative slowness of democratic government in adopting novel legislation, even that which is obviously beneficial. Democracy has already given mechanics and other workmen special advantages in collecting the money due them—witness the numerous acts relating to mechanics' liens. Public provision has been made in many States for the inspection of factories and small shops, and although this public service is not yet as efficient as it ought to be, it clearly indicates that democratic government can be relied on in the future to exercise efficiently this useful supervision. The boards of health established by democratic legislation in many States prophesy the enlargement in the future of medical supervision of many trades and arts in the interest of the whole body of consumers as well as of the workmen employed in those trades. The supervision by public officials of bakeries and slaughter-houses, and of the marketing of animals, meats, vegetables, and fruits, warrants a confident expectation that wholesome conditions of productive labor are going to be insisted upon by democratic government. So much in regard to the future may be safely inferred from the experience of recent years. These good ends are

to be accomplished in the future by legislation made effective by public officials. There will be no causes of dispute of this sort between employers and employed, and neither strikes nor any other forms of violence will be necessary to secure wholesome and equitable conditions of labor. The only weapon needed to secure suitable conditions of labor in either old or new industries will be publicity.

The proper proportion of the wages of labor to the interest on capital will be in the future the main cause for contention between employees and employers. On this subject joint agreements will doubtless be useful, and arbitration may sometimes be resorted to when a dispute over wages has reached the stage of active warfare; but it is to be hoped that industrial disputes will result in warfare less frequently in the future than in the past, partly because of the abandonment by unions of their monopolistic practices, and partly because of the increased publicity given to the accounts and methods of manufacturing establishments.

The wages boards and industrial courts which have been tried in Australia have not yet proved their usefulness as means of preventing industrial war even in that exceptional community; and they are unpromising, because they presuppose strong unions which have succeeded in enforcing a preference for union over non-union men. Australian legislation on old-age pensions is unattractive to people who have confidence in the fundamental good effects of democracy, not only on industrial life but on social and family life. A law which provides for a person sixty-five years of age, who has

been resident in the state for twenty-five years, a pension of $2.50 a week, but undertakes to compel near relatives to contribute to this pension by conducting a public inquiry into the circumstances of the pensioner, is not attractive to persons who believe democratic society likely to be more prosperous and more moral than any other. Modern political philosophers hope that democracy will root out the physical and moral causes of inefficiency, poverty, and misery, so that the number of the defective and dependent classes shall be largely reduced. It is reasonable to hope that preventive medicine will make even greater progress in the twentieth century than it did in the last quarter of the nineteenth, and by its efficient service reduce the amount of sickness and the number of premature deaths which now bring many families temporarily or permanently to destitution.

The motto of Switzerland—each for all and all for each—expresses concisely the fundamental belief of democracy that every one can and should promote the interests of all while he seeks his own, and that all can and should promote the interests of each. This belief is inconsistent with the conception that there is real antagonism between the interests of capital and of labor. The last ten years have witnessed much progress toward the abolition of that deplorable conception. It is for the democracy of the future to abolish it altogether.

The establishment of right relations between capital and labor will not prevent—indeed may promote—the production in every generation of a small number of rich men, the men who have a

natural gift for money-getting and business administration. What will the democracy ask and expect of these rich men? First, that they share their peculiar pleasures and privileges with the public to the utmost degree possible without destroying their own enjoyments. Secondly, that they use for the public benefit a fair proportion of the wealth they owe in part to free institutions and the collective action of the communities to which they have severally belonged. In other words, democratic society will expect that great fortunes, which have been made under the protection of public law out of natural public resources and the needs and habits of the total population, shall be unselfishly used in part for the promotion of public interests. The democracy will expect its rich men to contribute liberally to hospitals, asylums, dispensaries, schools, museums, churches, theatres, music, and the fine arts, and to help secure to public use gardens, groves, shore paths, mountain trails, ponds and streams, parks, and wide prospects. Already in the United States many rich men, sharing the democratic ideals, meet generously these expectations of the democracy. The future will see the extension of these good works of the rich in democratic society.

The democratic ideals and tendencies concerning capital and labor are not to be realized tomorrow. That realization needs time and patience. The present duty of patriots is to comprehend them, pursue them, and look forward with confident expectation to their ultimate fulfilment.

1909

SUCCESSFUL PROFIT-SHARING

THE industrial situation in this country, and, indeed, in the world at large, has not improved during the last twenty-five years. On the contrary, it has become more exasperated and more dangerous. What is the way out of the prevailing condition of industrial warfare? It amounts to warfare, this incessant conflict within the political body between the employed and the employers—and in many cases it becomes an actual physical contest.

I think we may all be sure that an improved state of mind in the employing class has come about within the last five years. A new attention has been paid to the conditions of the labor under which the laborer can reasonably be expected to be contented, efficient, and happy. There is a new interest in studying that problem of content, and it is becoming more and more apparent every day that the favorable conditions for a life of labor are just the same in all ranks of the community, and, indeed, in all professions, trades, and occupations. When we study the conditions under which laborers, operatives, mechanics, or any other employees in our great industries can be made contented and cheerful, and feel that they have a fair chance to pursue the happiness to which they believe themselves entitled, we soon find that the motives or inducements put

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before them must be made the same that are put before men and women in the higher walks of life. I have been studying now for a good many years the question of content in labor, and I have come to the definite conclusion that the conditions of content in labor which I have enjoyed personally are those which all laboring people ought to enjoy.

Now, among those conditions is the expectation of a profit to come from diligent labor; a profit, something more than the daily wage; a profit to the individual workman to result from his increased diligence and care, which in turn result from increased good will. The fundamental question is—how can the good will of men and women at work be increased? That is the bottom of this subject; because it is only by the increase of good will in work that content and happiness in work can be attained. It is only under conditions of good will that men and women can possibly work contentedly and happily.

Now, profit-sharing is the best method of bringing to bear on the employee the same motives that govern the employer—hence the interest in the study of any successful system of profit-sharing, of any system which has survived the industrial fluctuations of a dozen years or more, and has proved to be advantageous to both employed and employer.

Many experiments in profit-sharing have already been made, and many have not succeeded. Some have succeeded, but many have failed. I am going to describe to you a method of profit-sharing which has succeeded for thirteen years. Not that its success, pecuniarily regarded, has remained level or the

same through the thirteen years; but with varying pecuniary results, the moral and material success is uniform. That is the most interesting feature of the case of profit-sharing which I propose to describe to you.

The importance of a successful case of profit-sharing is very great under present conditions in the industrial world. New causes of anxiety have arisen. But the old method of improving the condition of the working people, the method of the strike by which wages have been raised, shorter hours obtained, and the general conditions under which work is done in the factory or mine have improved—this method, we now know, does not necessarily result in greater content, satisfaction, or happiness on the part of the working masses. There is good reason for that negative result.

A rise of wages alone may not improve the wage-earner's condition at all. The community as a whole must take into account the prompt effect of the rise of wages in many trades or industries on the cost of living. It has been maintained, not quite in a demonstrative way, that the recent rise of wages has hardly kept pace with the rise in prices of food, clothes, and shelters. Under that condition, of course the workman's power of consumption would not be increased. Shorter hours by no means tend necessarily to a happier condition of labor. No man who enjoys his work, or its fruits for him, shrinks from long hours. There are many reasons to think that hours may be too short in regard to the durable satisfaction of the workman —that the total productiveness of all industries

may be diminished by too short hours, so that prices may go up, and consumption be restricted.

It has been pretty well proved during the last twenty-five years that what is called welfare work does not necessarily result in greater satisfaction or content of mind in the persons whose welfare is really promoted. The study of the material conditions alone—as for example, the inquiry whether the clothing of the laboring classes is better, their food better, or their shelters more wholesome, will not be sufficient. The fundamental thing is the state of mind, the spirit and temper, in which laborers do their daily work. There is no such thing as happy conditions of work in an unhappy state of mind. You see, therefore, I think, how grave an interest the whole industrial community has in a successful case of profit-sharing, and the precise conditions, or terms, on which a successful system of profit-sharing has been built up.

The works or mill in which this system of profit-sharing has been in use is in Cambridgeport. I first heard of it last November at Hot Springs, Virginia, at a meeting of the Club of Electrical Manufacturers at which I was a guest; but it was not till I got within twenty minutes of Boston on the returning train that I learned that this successful scheme of profit-sharing existed within two miles of the house on Quincy Street where I lived for forty years, and that it had been going on in Cambridge since 1900. The present name and address of the company is the Simplex Wire and Cable Company, 201 Devonshire Street, Boston, Mass.

I want to describe the actual conditions under

which the profit-sharing takes place; but at the outset I ought to say a few words about the factory itself. In the first place, the mill is owned by a small group of persons belonging to one family. In the next place, it is of moderate size, employing not over 550 persons at the present day, and formerly a smaller number. Thirdly, the employees are of many different races. There are in the factory, besides a few people whom we might call Americans, Irish, Swedes, Italians, Lithuanians, Poles, Syrians, and Greeks. All these races are represented in this one factory in Cambridgeport. Fourthly, there is no large proportion of highly skilled laborers in the factory. It is a factory, therefore, where the wages are not especially high in any class of the workers. The average annual wage of the entire group does not rise above $600 a year per person. It is not like a set of carpenters, therefore, or masons, or plumbers; it is a set of people who have a moderate amount of skill and earn accordingly moderate wages.

Now, in this factory, so made up, the beneficiaries of the profit-sharing have been for the greater part of the period the employees in the works alone. Latterly the office-force in Boston, the clerks, have been taken into the system, but during all the earlier years, indeed until very lately, they were not included. The profit-sharers were just the ordinary working people in the factory, and the general superintendents were excluded.

On January first in each year a so-called preliminary list is made up of all the employees who are candidates for a share. The requirement for ad-

mission to this list is that the employee shall have been in the employ of the company at least a year. This preliminary list is posted in the works.

Now, the actual profit-sharers are those who, being on the preliminary list, remain continuously in the employ of the company until March first of the following year. That is to say, every profit-sharer who actually gets a dividend must have been in the employ of the company twenty-six months. That, you perceive, is but a short period compared with the period a man must serve to get a pension, for instance, from Harvard University or the Pennsylvania Railroad. But what is the next step? We have got a preliminary list, and we are next to get an actual list for profit-sharing. When? A year and two months after the preliminary list has been made up. After the preliminary list has been made up, the directors of the company determine that they will pay to the actual profit-sharers a certain percentage, not announced but fixed, of their net profits for the ensuing year—not for the past year, remember, but for the ensuing year.

This anticipatory action is a very important point in the method. The owners say, some time during the month of January of each year: "For the coming year we will divide among our working-people such and such a percentage of our net profits. We do not tell the employees what that percentage is, but we determine that we will divide a fixed percentage, fixed now in advance, on the net profits of our year to all our employees who come under our rules for profit-sharing."

In order to get the good effects of a profit-sharing

system the workmen must know beforehand that they are to receive a share of the net profits, determined in advance and divided under announced rules. It is not necessary that they should know exactly what share, but it is necessary that they should know beforehand that they are to receive a share of the profits of the business. They cannot tell, of course, any more than the owners can, what the profits are to be. Both parties understand that the profits have got to be won, have got to be made, in the future, in the coming twelve months.

Now, the prophecy is an essential portion of the system. The men feel that from the time when the directors say, "We are going to give you a definite share, a definite percentage which we have determined in our own minds, of the net profits of this coming year, whatever they are," they are interested in the safe working of the factory for a profit during the ensuing year. They feel that they want to do a good day's work, because they are not only going to get their wages for that good day's work, but they are going to get a profit which will be larger in proportion to the success of the factory as a whole. Every man on the preliminary list can say that to himself.

What are some of the immediate effects of putting before the workmen the same inducement to work for a profit that the owners feel? In the first place, they will stop wastes if they see them in the factory. They feel this to be to their interest. One of the owners gave me a small but instructive illustration of this effect. He was passing a machine which the man who tended it was

oiling, and the man said to him, "I ought to have another can for this oil; see the profit running out of that hole in the bottom!" Now, that is a state of mind that no rise in wages in a factory without profit-sharing will ever bring about—the desire on the part of every workman to stop wastes. Secondly, the whole working force becomes interested in the profitableness of the different jobs, or pieces of work, taken into the factory.

Without profit-sharing, a group of workmen will often take a dislike to a particular job, a particular piece of work. They find it troublesome, annoying, disagreeable; they want it thrown out, and they will do it so badly that it has to be thrown out. In such a case how does the motive of profit-sharing work? Mr. Everett Morss, one of the proprietors, and the most active of them in attendance at the mill, gave me a practical illustration on this point. The mill had contracted to do a very annoying piece of work; it was the coating of wire with a very thin coating of rubber compound. The work was difficult; and when the men had coated, as they thought, to the best of their ability, long stretches of this wire, it would turn out that there were many defects in the coating, and all those defects had to be found and patched, and the process was annoying and unsatisfactory to everybody.

The foreman was worried about it; he said the men were all discontented, and that he could not sleep nights because of those defects in that wire. But Mr. Morss pointed out to him that when he, the president of the mill, had estimated the cost of making that particular wire he had taken ac-

count of this difficulty in the manufacture, and had estimated the cost higher than he otherwise would have done, and that when he had made a price for that wire on the estimated cost, he had again taken account of the disagreeableness and difficulty of the job, and of the trouble it would give to the works. He told the foreman that the making of that particular kind of wire, though disagreeable, was the most profitable job in the works. Thereupon the foreman remarked, "I guess I'll go back and talk with the boys about that," and that was the last the president heard of that complaint. The sharing of the good profit on the disagreeable job reconciled the men absolutely to the nature of the work, and to the worry it gave them.

To go on with the description of the method. We have now a preliminary list, which consists of all the employees who can be candidates for a share of the net profits of the works, namely, those who have been in the employ of the company for at least twelve months. The actual profit-sharers are those who, being on the preliminary list, remain continually in the employ of the company until March first of the ensuing year, making the minimum time of employment before receiving a share of the profits twenty-six months. There will always be a difference between the list of actual profit-sharers and the preliminary list, the actual list having, of course, the smaller number of names.

Now, to what is that difference owing? To the dropping out of men on the way. Some men are sick and leave; others are not faithful, are not profitable workmen, and they are discharged. All

such men diminish the number of names on the actual list compared with the names on the preliminary list. But when it comes to the actual division, the owners divide the determined-upon percentage of the profits for the year among the survivors that remain, that is, among those who are on the actual list. The fact that others have dropped out simply increases the dividend to each individual who remains.

The owners do protect themselves in one way against the dropping out of large numbers of men for any reason. They declare that they shall never be responsible to the actual profit-sharers for a dividend of more than twenty per cent on their actual wages for a year under any circumstances. That is a reasonable precaution to take against the dropping out of an unusually large number of persons during the year for which they have prophesied the profits of the company. At the beginning of each year the owners determine the percentage of the profits of the company for that calendar year which shall go to the profit-sharers, and this has occasionally been increased as the estimated pay roll has been increased.

Year after year, in this particular company, the pay roll has gone up in amount, and as the total pay roll has gone up, the annually determined percentage of net profits, determined by the owners but unknown to the men, has been increased from time to time. After the close of the year, when the net profits of the company are known, the previously determined percentage of the net profits is the total dividend to all the sharers; and dividing this sum by the total

of the wages paid during the year to the persons on the actual list gives the percentage of dividend which each man receives on the wages which have been paid to him during the calendar year. The payment of dividends is made on or about March first for the previous calendar year, this delay being necessary in order that the company's books may be made up.

Now let us look at some of the results of this system, so far as we have studied it. In respect to the estimated pay roll and the actual pay roll, only proportional figures are given in the accompanying table (Table I), and it is one of the advantages of this system that it does not require extreme publicity of the affairs of the company. It may be worked to the satisfaction of the workmen without publishing what the profit of the company really is in any year.

The estimated pay roll being called 100 in the year 1901, has resulted in this way in the succeeding years:

In 1902, 130 represents the ratio of the pay roll of 1902 to that of 1901; and the ratios rise till 1908 when there was a serious drop; in 1909 the ratio recovered to 252; in 1910 it rose to 275; in 1911 to 314; in 1912 it was 312, and in 1913 the estimated pay roll just made up is 355, or three and a half times that of 1901. You can judge of the increase in the operations of the company by this increase in this estimated pay roll from 100 in 1901 up to 355 in 1913.

The actual pay roll is always smaller than the estimated pay roll; thus, the estimated pay roll, being called 100 in 1901, the actual pay roll was 75,

that is, a quarter off the estimated pay roll. I will skip to the last year, 1912, when, the estimated pay roll being called 312, the actual was 265, no great change of ratio between the two years.

Now let us look at the percentage of dividend to the actual pay roll. Each man knows, of course, just what his actual wages have amounted to in the year, and each man knows what sum of money he finds in his envelope on or about the first of March. The dividend percentage has varied as follows:

In 1901, 11 per cent; in 1902, 15 per cent; in 1903, 12 per cent; in 1904, 7 per cent and a fraction; in 1905, nearly 15 per cent; in 1906, 18.5 per cent; in 1907, 18.25 per cent; in 1908, nearly 10 per cent—but what drop from 18 per cent down to 10 per cent! Then up again to 10.5 per cent; down to 9.33 per cent; up to 11.4 per cent; and that is the last, the percentage of 1912.

You see that this percentage varies with the success of the factory, and that it is a distinct object for the workmen to make the success of the factory as great as they can. You perceive also that this addition to their pay is well worth having. The man who receives in one sum on or about the first of March 18 per cent of all he has earned in the preceding year feels that he has received a substantial return for his good will.

All the men receive this profit share in a single sum in cash. Is that safe? When we study the effects of any system of making payment for services or labor we must inquire how it works morally for the recipients. So far as the experience of this company indicates, the method of paying from ten

to twenty per cent of a workman's annual earnings in one sum is a safe one. In fact, it is decidedly safer, as regards frugality and savings on the part of the men, than it is to raise their weekly wages. If an ordinary workman's wages are raised a dollar or two a week he will usually spend the whole of them; he just lives a little more freely all the way along. But if he or his wife receives $75 or $100 in one sum at or about the first of March, the chances are good that that sum will either go into some desired improvement of furniture or chattels or into the savings bank. The records of the neighboring savings bank give clear testimony on this point.

I think that experience conforms to human nature in all classes of society. It is a safe thing with men who earn ten thousand to twenty thousand dollars a year, to make them an extra payment in a single sum which may bear a considerable proportion to their annual earnings. That is just what happens to a surgeon, a lawyer, or an architect when he gets an unexpected extra piece of work. Some precautions, however, are taken by this company with regard to the payment of that lump sum. They pay it generally on a Friday, and before the men go home for the noon interval. They do not pay it on Saturday afternoon. This is an illustration of the care with which this method has been administered.

As to the names on the actual pay roll, if the number on the preliminary pay roll for 1901 be called 100, the actual profit-sharers for that year were 78. The next year there were 105; in the

next, 105, then 117, 149, 173, 146, 173, 207, 207, 227, and 233. They have gone up—these numbers being all proportional—from 78 to 233.

But now observe this condition in this particular factory—the profit-sharers are by no means all the people employed. A large proportion of the working-force does not come into this profit-sharing, because they have not been employed for a whole year before the annual promise of the owners was made, or they did not stay in the employ of the company during the year after the promise was made. That is an interesting feature of this well-proved method. It is not necessary that all the hands in a mill, factory, or mine should be profit-sharers. Indeed, the method will work well with not more than a third of the whole working-force enjoying the profit-sharing.

What effect have the profit-sharers in the works on their fellow-workmen who are not profit-sharers? Nothing but good. The profit-sharers are eager to have the works successful, to have them make as much profit as possible during the year current. Therefore, they observe, stimulate, and help those members of the works who are not profit-sharers. The profit-sharers become interested to see that those who are not profit-sharers do a fair day's work with a fair amount of care and interest. They also become interested to see that persons who are not profitable to the works be not retained in the employ, because such people diminish the profits for the profit-sharers.

Any one on the preliminary list who may be discharged, or may leave the Company's employ, be-

fore the end of the fourteen months of service (in addition to the preliminary year) which entitle him to share in the net profits, will lose his share, which will be divided among those remaining.

This is an important rule. An unfit man can be discharged at any time during the year of profit-sharing. The saving of his share, however, does not go to the owners, but is divided among the other profit-sharers.

The owners have discretionary power in cases of death and sickness. A death-benefit shall not exceed an amount equal to the previous year's rate of dividend on the actual wages earned by the deceased, plus the amount it is estimated the workman would have received had he been able to work all the year. A death-benefit is paid out of that part of the net profits to be divided among the profit-sharers. In cases of sickness, the employee's name is kept on the profit-sharing list, to prevent his suffering the loss of his entire dividend; and there is no limit to the time a man's name may thus be kept on the list.

I think you see how widely this particular system might be employed. It is not necessary for its success to have a remarkably good body of workmen. It is not at all necessary that all the workmen should be profit-sharers. It is not at all necessary that all the work-people should be of one race, or even of the most intelligent and best instructed races. It might be used in factories, shops, or mines on any scale, large or small, provided the needed confidence in the managers existed.

It is applicable on a broad scale to the actual conditions of American industry.

I should mention that in this particular works the proportion of women employed is small. For that small proportion, the system works just as well with women as it does with men, and it might work with a large proportion of women in the force. There seems to be no reason why it should not do so.

This method of profit-sharing, with a period of twenty-six months required for participation in the profit-sharing, has many advantages over a pension system. A pension system is hardly applicable except in an institution which has a durability, a permanence, which all people acknowledge, or thoroughly expect for it. But a small group of private owners, like this Simplex Company, cannot win that reputation, and therefore cannot be expected to maintain a pension system. A pension system can hardly be used by a small group of owners who cannot make sure of perpetuity; but such a group can apply this profit-sharing method; and therein lies the great advantage of this careful and just system.

This profit-sharing appeals to some of the very best human motives—motives for the building-up of the individual and of the family, for the improvement of a working-man's condition of life and that of his wife and children. It seems to me to supply a safe method of dealing with the fundamental sources of the industrial warfare. Most of the methods now in use, most of the supposed advantages already won for the wage-earning class through industrial warfare, instead of promoting the play of the good motives in human nature, pro-

voke the play of the evil. For instance, the restriction of output, the prohibition of zeal in labor, the uniform wage, the constant search for a monopoly of labor, and the indifference to industrial wastes and losses—all those things discourage and defeat the play of the good motives in human nature. Therefore, they do not tend to any amelioration of the present industrial conditions; indeed, they tend the wrong way.

Profit-sharing tends the right way. Profit-sharing is capable of bringing into the humblest work in the industrial world the same motives which prevail in the highest kinds of employment; and these same motives will, of course, work in just the same way in all levels of industrial life, that is, they will develop humane, civilized, progressive conduct and character.

I suppose that the best and the most effective of all those motives is loyalty—loyalty to the mill, factory, mine, or shop, loyalty to the just employer, loyalty to the institution for which one labors, be it industrial, religious, or educational. I know that loyalty has been the source of the most profound satisfactions in my own working life; and I cannot conceive of anybody's working happily without that motive. Now, profit-sharing gives a chance for the play of that motive, in addition to the motive of increasing property, and bringing home each year an extra dividend capable of adding to the well-being of every member of the family. Profit-sharing affords the means of promoting good will between employers and employed; and the promotion of that good will is the only fundamental

method of curing the industrial warfare, just as the promotion of good will among nations is really, when you come to the bottom of the subject, the only means of preventing international warfare.

The method above described prompts men to industry, fidelity and loyalty by appealing to their love of gain, but also to their ambition and family love. These are the great motives of civilization.

1913

CLOSED SHOP OR OPEN

THE subject on which I am to speak to-day looks as if it were an economic or business subject, but it is not. It touches the main moral sources of American efficiency. It touches the whole educational problem, which is the great problem of to-day in America.

I must begin with an explanation of what is meant by the term "closed shop." A closed shop is one in which only union men can work, that is, only men who have been and are members of a labor union. In the next place, the closed shop is a shop in which all the rules and regulations of labor unionism are applied to the individual workman and to the employer. That means that a closed shop is a shop in which the largest possible production is not only not sought for, but is something to be absolutely avoided. Union labor regulations concerning the way in which the individual workman shall work are very restrictive on the individual's production and the shop's production. I can illustrate that best, perhaps, with some of the union regulations in the building trades. I happen to have myself seen these regulations applied in some striking instances; and probably you are more familiar with the results of unionism in the building trades than in any other.

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I remember that when those beautiful buildings of the Medical School on Longwood Avenue were under construction and were pretty well advanced I called there one morning—I was apt to go there at least once a week to see how they were getting on—and saw a number of men quitting the grounds, as I entered, carrying their bags, but not dressed in their working clothes. They were going away. I got hold of the superintendent, a first-rate man of great intelligence, capacity, and industry, and asked him what those men were leaving the grounds for. He said, "Let me show you"; and he took me into one of the lecture-rooms near-by, and pointed out a small rectangular hole, which had been cut in a brick with his own cold chisel and hammer by an electrician who was wiring the room. A mason happened to be in the same room and saw him do it. Instantly he reported what he had seen to his fellows, who were laying bricks in two or three other buildings. Immediately the men dropped their tools and marched off. That electrician had violated a rule of the masons' union, namely, that no one but a mason should cut a hole in a brick. The contractors on that large job were a famous firm of that day, the Norcross Brothers of Worcester. They were not unionized in their business; they kept an open shop and took contracts in many different places all about the country. The master builder has this great advantage over masters or operators in other trades, that each job can be worked by itself, and has no concern with any other job carried on at the same time by the same firm. That is not frequently the case in other large

American industries. An operator or manager must not only consider his other jobs but his competitors in the same business. Norcross Brothers promptly decided, with the consent of the owners, to replace brick backing by concrete backing, and they succeeded in replacing the striking masons the next day. At that spectacle the masons asked to be taken back. That incident illustrates the strict control which a labor union—it does not matter what the trade is, mason, carpenter, plumber, or painter —expects to exercise over the individual workman who does not belong to the union, and over the employer.

Some years later, we were erecting Langdell Hall, here behind the Scientific School building, a beautiful building in which all of us were very much interested, because it was to be named for Professor Langdell, who invented and applied the case system of instruction, of which I hope you have all heard. It had been reported to me that the work was not getting on well. The building seemed to be almost finished, but not quite, and what was the matter? I went over to see. The same Norcross Brothers had the contract; and I met on the floor the same superintendent that I had dealt with at the Medical School buildings. I asked him if the work on the buildings had slowed down. "Well," said he, "rather." "Why?" "Oh, because Norcross Brothers have got unionized on this job, not on all of the jobs they are now carrying on, which are scattered in different parts of the country, but they are unionized here." "Well," said I, "what has happened?" "Do you see that man over there

putting the latches and hinges on that door?" "Yes." "Do you see how he is working?" "Yes." "He is a union man who is conforming to the union rules about the amount of work he does each hour." I asked him how serious this trouble was. "Oh," said he, "it will take me twice as long to finish the carpenter work in this building as if Norcross Brothers had not been unionized, fully twice as long."

I must illustrate the difficulty with regard to the strict administration of union rules on a building by another job, in which I was personally a good deal interested, the rearrangement and enlargement of a house built in 1838, which Mrs. Eliot and I decided we should like to live in after we retired. It was on the corner of Fresh Pond Parkway and Brattle Street, and in 1909 the situation was a very beautiful one. We employed an architect who turned out to be a warmer friend of the laboring man than he was of the owner by whom he was employed; and I had many opportunities to see exactly how union rules are applied to diminish the amount of labor performed by the individual workman. I saw the painters slowing the motion of their hands as they were using the brush on perpendicular wood work. I saw them reduce the width of the brush with which they applied the paint. By that single device they doubled the time required for performing the work in which I was interested. I doubt not that you who hire houses or apartments here will have opportunities of seeing exactly such things done, if you have the mis-

fortune to need any repairs on the apartment or house in which you live.

I have illustrated in this way the meaning of the term "closed shop." The closed shop has become in the developments of the last twenty years the main instrument of the labor unions for controlling many important industries in our country. They have succeeded in winning in a few industries—not in many, in a few—absolute control through the closed shop; because, abandoning the former practice of the American Federation of Labor, they now organize strikes which are nation-wide. They used to organize strikes in a single locality and usually in a single trade at a time, but lately they have abandoned that practice and endeavor to organize nation-wide strikes. That has been conspicuously the case with the four Railroad Brotherhoods. They used to organize strikes on a single railroad. A famous case under that policy was the original strike on the C. B. & Q. during the administration of Grover Cleveland. But now, and indeed for some years past, they have felt themselves able to organize nation-wide strikes and extensive "sympathetic" strikes in support thereof. Their object is to obtain absolute control of important American industries all over the country. That will give them control of the government itself; and it is the ultimate object of the American Federation of Labor to substitute for our present form of government, even in regard to international relations, the government of the labor union through the closed shop and the union label. Needless to say that the Federation will fail in this undertaking.

But now what is an open shop? It is a little more difficult to define the open shop, because the open shop is now used in a great variety of American industries, and in many different ways. Many employers, for instance, make no other change in their shop or plant when they adopt the open shop policy. That policy is, "We will employ union men and non-union men indifferently, take them both on, and they must work together faithfully and amicably in the same shop." In that one respect open shops agree; but in many other respects they differ widely. Some employers who conduct open shops do nothing else for the benefit of their workmen and of their business. Others add profit-sharing, or stock holding, or much welfare work among their employees and their families.

In spite of these various methods of administering an open shop, the open shop has been gaining during the last five years on the closed shop rapidly, and largely. Mr. Walter Drew, who has long been counsel for the National Erectors' Association, has recently printed the statement that 90 per cent of the important American industries to-day are working on the open shop plan. That Association, or its members, put up the tall, steel-framed buildings which have lately become common. It has suffered everything from the efforts of the unions to interfere with their work; but has come out victorious in the contest. Any one who finds difficulty in crediting Mr. Drew's statement can find excuse in the vagueness of the word "important." Undoubtedly the open shop is succeeding as against the closed shop, and we ought all to be very glad of it.

Some American cities have thought it worth while to advertise the fact that the open shop prevails in their industries. The open shop, however, is not a specific for the labor troubles. It is so variously used that there are many questions about it still to be answered; and you must not imagine, therefore, that because the open shop is gaining rapidly on the closed shop, our labor troubles are over. They certainly are not.

Such being the definitions of the closed shop and the open shop, and also a bit of their history in our country, let us now turn to what I call the moral and educational principles involved in the industrial warfare. It has been and still is downright warfare, as was lately acknowledged by a conspicuous labor leader, who said that all the gains the poor man has made in the last hundred years have been made at a certain cost, namely, hospitals filled with wounded people and many corpses lying out in the open. He meant that the labor warfare has been, and he thinks is going to be, conducted in just the way ordinary warfare is, that is, by killing, wounding, and abusing men, women and children, and hurting very much a large proportion of the entire people. The industrial strife is, therefore, a form of civil war. That is so sorry a conclusion that thoughtful people like you inevitably reject it and seek a better one. In that search it will be necessary for you to study the effects of the labor union policies on American efficiency.

The majority of the American people have been in the habit of thinking that the real sources of American efficiency lie in our free and fertile soil,

open to settlement by multitudes of people, and in our mineral resources of all sorts, but especially in our coal mines. Many people in all countries think these natural resources to be the real sources of American efficiency. I submit that they are not.

When the Pilgrim Fathers brought over to the wooded wilderness the principle of toleration in religion, and sealed their devotion to it by banishing themselves from England, they planted a seed of American efficiency which has seldom been equalled for fruitfulness and fertility. When the successive generations of New England people settled down to work in complete freedom for the benefit of their families and themselves and for joy in their work, they too planted good seeds of American efficiency. When the Constitution of the United States was adopted, securing wide personal rights to the individual, and fixing firmly in the Constitution itself the principle of religious toleration, it planted seeds of American efficiency which are still thriving and producing astonishingly, in spite of the incoming of adverse principles and rules through labor unions. The present progress of the open shop testifies to the love in American hearts, native or foreign, if only the foreigners have lived here a few years, of personal individual liberty.

These are the main sources, in my view, of the efficiency of the American people. You see they are moral motives or principles. They are ingrained in our native population, and are easily absorbed and taken over by our immigrant population. A few years of residence here inspire these

alien peoples and their children with the same love of individual liberty and the same belief in it that our native populations feel. Let us all recognize that in liberty lies the main motive and cause not only of the actual prosperity of the American people, but of its growth and its permanence. The permanence of the American people is going to be promoted—or, indeed, secured—by the new freedom which women have lately acquired under our democratic institutions, a freedom which is political, social, and industrial. If, then, it is moral causes, not economic considerations, which must make us secure, strong, and prosperous, what is the duty of the American people to-day with regard to the cultivation and enforcement of these moral principles, of these moral causes of their own security and prosperity?

I lately wrote a paper addressed to the recently appointed Coal Commission. The coal strike in this country raised all sorts of questions about personal liberty and group liberty, and their opposites. The coal strike, you remember, was lately "settled." That was the word used. Of course no settlement whatever has been made; and no progress toward settling it. Being invited by one of the counsel for the Association of Coal Operators to say something to the Coal Commission, I wrote this short paper (holding it up). I am not going to read it all. I should like to give you the important headings with some comment on each. I shall read passages from the paper numbered 1 to 6 and explain the significance of each.

"That part of the American people which thinks about the existing industrial warfare from the consumers' point of view, and with a forward look to the general welfare, is hoping that the Coal Commission will see its way to make recommendations on the following subjects:—

"1. The keeping of order in all the coal fields of the country, unionized, non-unionized, and those managed by direct negotiation between the employer and his employees, to the end that the country's supply of coal may be fully maintained."

That is said about the coal strike and its consequences. It applies straight to every important industry in our country. The keeping of order, that is, peace in the field of a strike or similar disturbance, is the first duty of our Government. We all ought to support Government in every way in discharging that duty. Of course the politicians are very loth to adopt that policy; because almost all politicians, or men who have seriously entered on political service, are afraid of the labor vote, in spite of the fact that the labor union members in this country make but a small percentage of the total of manual laborers. They are, however, so well organized, so strongly entrenched, that all politicians are very much afraid of them, and are reluctant to do anything which could be construed as adverse to labor unions. Many times during the last twenty years we have seen that; and we are just now seeing it again. On every paper published in the interest of a candidate for office, no matter what party he belongs to, no matter whether he calls himself a Republican, a Democrat, or an Independent, you will always see the union label.

Somewhere on the paper you will find that instrument of monopoly. I lately noticed that label on the papers sent out in the interest of Mr. Godfrey L. Cabot, who has for many years conducted an important and highly successful business free of unionism—on his papers for the coming election in Cambridge as an Independent or Home Rule candidate you may see the union label.

"2. The protection of the public against every form of monopoly in the coal industry, whether attempted by labor or by capital."

Protection of the public! As regards coal, of course, the public means the consumers; and in other industries as well it often means the consumers. Sometimes it has a wider signification. It is the clear duty of our Government to protect us all against monopolies. Now, that involves some qualification of the original individual rights as guaranteed by the Constitution. It involves an exercise of what is called the collective power of society against the individual. That sort of collectivism must be used —endured, if you please—in our times. There is no getting on in modern society—so complex, so eager, so reckless—without using some of this collective power against the individual. A strong case of that necessity is seen in the prohibition legislation. That is an interference with individual liberty, with the tastes or desires or purposes of the individual who wishes to drink alcohol. Doubtless you all see that on that matter the exercise of the collective power has become indispensable. Only the national power can suppress the saloon.

"3. The high value towards the prevention and settlement of industrial disputes of face to face discussion between the parties before an impartial arbitrator whose decision is effectively published."

Such discussion resulting in acceptance of arbitration is one of the most essential methods under existing industrial conditions. Of course, the principle of arbitration has long been an American doctrine, urged in international affairs for generations; and yet we are not a member of the League of Nations. It is to be observed, with regard to the principle of arbitration, that it is not necessary that the arbitrator should have power to enforce his decision. There are doubtless many cases in which the power to enforce his decision would be very useful to society and to the contending parties; but it is not necessary that an arbitrator should possess that power. You will find a very interesting case on that subject in the Canadian Act called the Industrial Disputes Act. There is an act which has been in operation, I think, for fourteen or fifteen years now, in which the arbitrator has no power to enforce his decisions; and yet the act has been extraordinarily successful in Canada preventing many strikes, and adjusting many, and all because the decision of the arbitrator is published in the most effective way by the government itself. That is all the action the government takes; it secures the publication of every arbitrator's decision.

"4. The development of the partnership relation between the employer and his employees, as distinguished from the landlord and tenant or the master and servant relation."

It is about forty years since this idea of partnership between an owner and his employees was thoroughly expounded on this spot by Professor Francis G. Peabody, then Professor of Social Ethics in Harvard. That was not his title, but that was his subject. I recall that he made a special journey to France, and stayed there some months, in order to learn exactly what the French people were doing in this direction, the maintenance of partnership relations between the French employer and his French employees. At that time this teaching seemed to go for nothing. Probably it took sporadic effect on a few individuals; for now the idea is brought forward and advocated by many instead of one. Indeed, this conception that the manager or owner of a works or plant is in partnership with his workmen is going far in our country at this moment; and we have much to hope for from the wise development of this conception.

"5. The abandonment by all concerned of the policy of reducing individual, group, or community productively as a means of promoting individual, group, or community welfare and national prosperity."

I suppose that is the most important suggestion made in this paper to the Coal Commission. It has resulted from the rapid, strong, and widespread development of unionism that many people beside the union men have got the idea that it is a good, or charitable, or unselfish thing, in any individual workman to do as little as he can on his job. That is, of course, a pure delusion on the part of the individual workman, but it is a very mis-

chievous and dangerous delusion. It has spread far beyond the ranks of labor unions. One day last May, I met on Fresh Pond Parkway an excellent contractor that I used to employ for grading and garden work, who seemed to be arranging a garden for one of my neighbors. He was directing five or six laborers. As soon as we had exchanged greetings, he said to me, "Just look at those men. I made the mistake of taking this job at a fixed price. I ought to have taken it by the day. I am going to lose a lot of money on it. If I am not here those men do nothing. While I am here, they move their arms and legs just as slowly as they can and keep their balance." That was an accurate as well as a witty description. Those men did not belong to any union; they were just common laborers who had adopted the union method of reducing individual productivity. The abandonment of this policy by all concerned should be urged by every organ of public opinion. Any of you can see that method of reducing productivity in use, if you look at the City's laborers on the streets of Cambridge going about their work. It should be said, however, that almost all those men are aged or somehow crippled.

"6. The success of democratic institutions depends, in the long run, on every citizen doing his best for the common welfare."

That is essentially Pasteur's statement about the advantage of the democratic form of government. He said that democracy left every citizen free to do his best for the public welfare. His best! Not anybody else's best, but his best. That is just what

Pasteur himself always tried to do. With what prodigious results!

I think I have now laid before you the main doctrine which I hoped to bring to your attention. The real sources of American efficiency, American prosperity, American security, are moral, not material; and they will remain so. At this moment, many good people are recommending certain economic changes, or, as they say, "adjustments" which they think will bring peace to Europe. They never will. They never could. Tariffs, efforts by one nation to gain something in commerce or trade at the expense of another, and negotiations about loans which impair the self-respect of the borrower have always been causes of war, not peace; and they always will be. They breed envy, hatred, and malice, and all uncharitableness, not good will.

My hope for peace—and it is a strong hope—is that the American people are now going to recover from the moral collapse they suffered, under bad leadership, after the Armistice. They will resume their generous efforts of 1917 and 1918 to make this world a better place to live in, and to that end to build up among other peoples American liberty under law. They will thus take again the only road to peace.

1923

WAR AND PEACE

PRESENT AND FUTURE CAUSES OF WAR, ESPECIALLY IN THE ORIENT

Advocacy of these slow-acting means of preventing wars in the East implies that within the superintended areas the probable causes of international war have changed within fifty years. Dynastic and religious wars, and wars in support of despotic government are no longer probable; and racial antipathies are held in check by the superintending European powers in all countries to which that superintendence extends. Thus, the Pax Britannica has practically put an end to the racial and religious warfare which from time to time desolated the Asiatic countries over which British influence now extends. Small outbreaks of racial antipathy or religious fanaticism occur locally; but these are insignificant exceptions to the prevailing tranquillity. The fighting Great Britain has done to establish and maintain this quieting influence has been fighting on a small scale compared with that which went on among European nations during the nineteenth century, or among Oriental peoples in many earlier centuries, and the Pax Britannica has therefore been a great contribution to the peace of the world.

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It is not only in the East that the probable causes of international war have lately changed. All over the world, it is reasonable to suppose that wars for dynastic motives will occur no more, and that religious motives for warfare will hereafter be incidental or secondary instead of primary. It is also reasonable to believe that wars in support of absolute monarchs and despotic government will henceforth be unknown, so general is the world-wide movement toward constitutional government and free institutions—a movement from fifty to three hundred and fifty years old among the different nations of the West, but comparatively recent in the East.

What, then, will be the probable causes of international war in the future?

The causes of war in the future are likely to be national distrusts, dislikes, and apprehensions, which have been nursed in ignorance, and fed on rumors, suspicions, and conjectures propagated by unscrupulous newsmongers, until suddenly developed by some untoward event into active hatred, or widespread alarm which easily passes into panic. While the Eastern peoples—Far and Near—will have some causes of their own for war, because in some instances neither their geographical limits nor their governmental institutions are as yet settled, among the Western peoples the most probable future causes of war, in addition to national antipathies, will be clashing commercial or industrial interests, contests for new markets and fresh opportunities for profitable investment of capital, and possibly, extensive migrations of laborers. All modern gov-

ernments, in which life, liberty and property are secured by public law, desire to extend the commerce and trade of their people, to develop their home industries by procuring markets for their products in foreign lands, to obtain in comparatively unoccupied or undeveloped parts of the earth opportunities for the profitable employment of their accumulated capital, and to gain room for a possible surplus of population in the future. Eastern and Western peoples alike feel the desire for a large, strong governmental unit, too formidable to be attacked from without, too cohesive to be disintegrated from within. Both East and West exhibit the modern irrepressible objection to alien rule, especially when such rule, like that of the Manchus or the Turks, produces poverty and desolation, denies liberty, and prevents progress.

Several Western nations, which have the saving, or accumulating, habit, are eager to make loans to remote and comparatively poor nations which are in great need of money to pay for costly public works of transportation, conservancy, public health, and public security. In making such loans the bankers of each Western nation expect the support and protection of their own government. As security for such loans the borrowing government, national, provincial, or municipal, pledges some of its resources; and if the expected interest or dividend is not paid, the lender forecloses. Hence serious international complications. In this lending business the Western powers come into competition with each other, and stimulated by mutual jealousies, engage in aggressive operations against

the Oriental peoples, who have been as a rule helpless in their hands, until Japan adopted and improved on the Western military organization and methods of fighting, and succeeded for a short time in borrowing the money needed to pay the heavy costs of modern warfare.

The penetration of Oriental territories by traders and missionaries has given occasion for many attacks by Western powers on Oriental governments and peoples, on the theory that the citizen or subject of a Western government is to be protected by his own government, wherever he may wander or settle in Oriental communities. If any such adventurous citizen is harmed, there follows a "punitive expedition" with wholesale destruction of innocent property and life, and often an extension of the "sphere influence" of the punisher. This protection of missionaries, traders, and travellers has often been the cause, or in many cases the excuse, for attacks by Western powers on Oriental communities, for the seizure of valuable ports and of territory adjacent thereto, and for the enforced payment of exaggerated indemnities which heavily burden later generations. Hence long-continued international dislikes and distrusts.

A people which has for centuries been under despotic rule will not have accumulated any considerable masses of capital, because private property will not have been safe from arbitrary seizure, and cannot have been transmitted safely from generation to generation. Throughout the East, therefore, the capital which is seeking investment in mines, plantations, factories, transportation com-

panies, and so forth, is Western capital, and is likely to be for at least another generation, or until Japan and China can reap the full benefit of the security of capital under constitutional government. The Orient as a whole, and China in particular, will need for many years the continuous investment of Western capital in great public works, such as roads, railroads, defenses against flood, drought, and pestilences, schools, universities, and a civil service which lives on salaries, and collects and expends honestly a stable public revenue. As soon as the Republic of China can provide itself with a stable public revenue, it will come into the markets of the world for an indefinite series of large loans; and all the Western peoples will be eager to share in the lending. Japan, too, will need for many years large amounts of capital for the furtherance of its governmental and industrial changes.

Through all the Oriental countries the mass of the people maintain a lower standard of living than that of any civilized Western people, whether European or American. This is partly a matter of climate and of density of population; but it is also a matter of tradition and custom. When the standard of living is close to the limits essential to the maintenance of health and bodily vigor, natural catastrophes like droughts, floods, earthquakes, and pestilences cause recurrent periods of immense human misery, from which recovery is slow. The misery of these masses in turn seriously depresses the courage or enterprise of the suffering nation, and commerce, trade, and manufacturing industries

throughout the world, particularly in those Oriental countries where modern means of transportation and communication have not been adequately developed. Hence, frequent interruptions of trade, and disorders both interior and exterior; and hence, also, troublesome migrations. The chronic poverty of multitudinous Oriental peoples hinders the desired development of Western industries and commerce; because the poverty-stricken millions cannot afford to buy the Western goods. To prevent such widespread miseries and such chronic poverty would be to remove the cause of many of the violences which break out from time to time in Oriental communities, and provoke or promote the intrusion of the stronger Western powers. Successful prevention would imply sound legislation, efficient local administration, and the liberal expenditure of money. Advocacy of such measures and help in executing them would promote peace and good will. Here is a great field for Western benevolence, skilfully applying private endowments to public uses.

Some of the worst dissensions between Eastern and Western peoples have been caused in recent years by the dense ignorance and gross superstitions of Oriental populations. A good example of the contentions due to these causes is the Boxer insurrection in China, against which several Western powers took arms—when their Legations were attacked—with success so far as subduing the insurrection and procuring huge indemnities from China went, but with deplorable effects on the disposition of the Chinese people toward Japan and all the

Western powers that sent troops to Peking, with the single exception of the United States. The only real cure for ignorance and superstition is universal education, and that cure will take time.

Although the causes of war tend to become commercial and industrial, two other world-wide causes of war remain which are liable to take effect at any time in both the East and the West. The first is the fear of sudden invasion by an overwhelming force. This fear is as keenly felt in China and Japan as it is in Germany, France, and England; and there are no better defenses against it in the East than in the West. The neutralization of territory which protects some of the small European nations, like Switzerland and Belgium, rests rather upon the mutual jealousy of the greater powers than on any established practice among the European peoples, or any trustworthy sense of expediency and justice. The nearest approach in the East to the practice of neutralizing territory is the respect paid by the larger European powers to the Eastern possessions of smaller powers. Thus, England and France are respecting the Oriental possessions of the Netherlands and of Portugal; and all nations are now respecting the outlying possessions of Japan. Whether the Eastern possessions of Western powers will in the future be transferred from one nation to another as a consequence of the issue of European conflicts—as they have been in the past—is a problem for the future. The only hope in the East, as in the West, for relief from this terrible apprehension of invasion lies in the progress of international law, and in the spreading

opinion among publicists that there are better ways than war to settle international questions about territory, commercial intercourse, and sovereignty. This is a region in which all three divisions of the activities of the Carnegie Endowment for International Peace are nearly concerned—Intercourse and Education, Economics, and International Law.

The other apprehension which may at any time become the cause of war is the fear lest the supplies of food and raw material which come to a country over seas should be cut off. Such insular countries as Great Britain and Japan are peculiarly subject to this apprehension; for either of them would be seriously distressed by even a short interruption of its supplies of food and raw material. Both these nations are therefore obliged to maintain navies more powerful than any likely to be brought against them. Hence the immense burdens of competitive naval armaments. A remedy for this apprehension is, however, in sight. The doctrine that private property should be exempt from capture at sea, as it is already exempted from seizure without compensation on land, will, when adopted by a few nations which maintain strong navies, relieve the nations adopting it from the dread lest their food supplies and the supply of raw materials for their manufacturing industries should be cut off, and the export of their manufactured goods be made impossible or unsafe. To secure relief from this recurrent apprehension which prompts such exorbitant expenditure on navies, it would not be necessary that all the nations of the world should adopt the doctrine of the exemption of private property

at sea from capture. Five or six of the stronger nations, adopting it and enforcing it against all comers, could immediately secure relief for themselves, and for any other nations that chose to join them in the adoption of the policy. The United States has advocated this doctrine for many years; but an effective adoption of it has been prevented by the reluctance of Great Britain to abandon the practice of seizing upon the ocean private property belonging to the subjects of her enemy. There are some signs that Great Britain is approaching the conclusion that she has more to gain than to lose by the adoption of the policy of exemption.

A common reason for the aggressions of Western powers in Eastern countries has been their desire to possess or control ports in the East through which Western trade with the teeming Oriental populations could be safely conducted. Great Britain, France, Germany, and the Netherlands all possess some ports, and in China the first three powers exercise a strong control over other ports by means of treaties and leases forced upon China. Russia's keen desire for better ports in Eastern waters than she now possesses has been a leading motive in her Eastern policy for many years. The statesmen of Japan felt that it was absolutely necessary for her to possess the ports of the Korean peninsula. When once a nation gets possession of ports which originally and properly made part of another nation's territory, the possessing nation feels that it must defend them against all comers; hence incessant preparations for war and ever-increasing armaments. The peace of the world

would be promoted if no nation, Occidental or Oriental, possessed or controlled a port on another nation's territory.

The peace of the world is also threatened by the constant efforts of most of the trading nations to enlarge their territories, or "spheres of influence," in remote parts of the world, whether sparsely or densely populated. It seems to make little difference whether these enlargements are likely to be profitable or not; they will be acquired at a venture.

In Europe and America, the creation of new and large units of government went on actively during the last half of the nineteenth century, and is still in progress by natural growth and new affiliations. Among political theorists doubts begin to be expressed about the expediency of these very large units of national territory and government. Evidence has been produced that the smaller nations in Europe are more prosperous than the larger; perhaps because they waste less on armies, navies, and armaments. There are those who think that China would be better off if Thibet, Mongolia, and Manchuria should be absorbed respectively by Great Britain, Russia, and Japan, leaving the eighteen provinces of China proper as a compact and manageable whole. These objections to exaggerated size still remain in the region of speculation and not of practice; and the desire of trading nations for more and always more territory remains a threatening source of international contests.

Recent events, however, in both the Near and the Far East indicate clearly that the government of large populations by an alien race is getting increas-

ingly difficult, and may in time become impossible. The unrest in India, the abdication of the Manchus in China, and the Balkan war all illustrate the fact that the government of large populations by an alien authority is likely to be more and more resented and ultimately resisted; and that no amount of good will and good works by an alien government will be able to overcome the opposition of native races to such a government, just because it *is* alien. Because of the strength and vitality of this racial sentiment against alien government, it is likely that the task of governing and supervising large native populations from a distance by rulers, judges, and administrators of a very different race will prove to be increasingly troublesome and costly; so that freedom of commerce and trade will come to be sought by other means.

Against these formidable difficulties, what forces could the Provisional Government bring to bear to unify China, and construct a strong, stable government for the eighteen federated provinces? These forces were only sentiments; but they were just such sentiments as have brought into being on other continents firm and enduring governments. The first was the sentiment of Chinese nationality; the second was the objection to an alien government, that of the Manchus, which was only a sham government; and the third was the sentiment of common resistance to the aggressions which the Western powers had been committing for a hundred and fifty years on Chinese soil.

The sentiment of nationality is vast, vague, and hard to define; but the history of Europe and

America is full of instances of its tremendous potency. It does not seem to need a common language, or a pure race, or a smooth blend of somewhat different races, or the same climate, or identity of the sources of livelihood. It is not necessarily based on similar histories, common traditions, or even the same religion. If we may judge from European and American experience, the sentiment of nationality is based on similar social standards or needs, on common ideals, on like passions good and bad, on a love of independence and liberty, on a preference for a large, comprehensive governmental unit over a small one, and on the desire to resist common dangers, wrongs, or aggressions from without. This last desire is very unifying the world over. Experience of misgovernment tends to unite the misgoverned, just as an earthquake, a destructive storm, a conflagration, or a flood always brings out in many of the sufferers a very practical brotherliness. Such seem to be the sources of the present development among the Chinese of a potent sentiment of nationality.

When several races live side by side on the same soil and form a community, it often happens that the ideals of one of these races dominate the development of all. This result has often been conspicuous in history, and is still exemplified in the present life of certain nations to which several different racial elements have contributed without being blended. The most essential element in the modern idea of nationality is identity of ideals, and of customs which are the offspring of ideals.

I have already mentioned in this report the

growth in many regions of the world of the objection to alien government as such. It appears on a small scale and a large, in barbarous and semi-barbarous countries, and in countries which have long been civilized. It may be successfully repressed for long periods, though recognized. It may be long concealed by multitudes who feel it hotly; but it tends more and more throughout the world to break out at last, and win the day.

The motive of resistance to foreign oppression works wonders toward the formation of new national units, as has been forcibly illustrated in Europe during the past year. All China has had such bitter experience of oppression and robbery on the part of Western nations, that she inevitably possesses a strong unifying force in this common sense of unjust suffering.

All the enterprising Occidental nations are interested in determining accurately what the desires and ambitions of the Japanese people really are. The Japanese have proved by their achievements during the past forty-five years that as a race they possess fine physical, mental, and moral qualities. They possess in high degree intelligence, inventiveness, commercial and industrial enterprise, persistence, and the moral qualities which bring success in industries and commerce. They have learnt and put into practice all the Occidental methods of warfare on sea and land, and have proved that they can face in battle not only the yellow races, but the white. Are they then a dangerous or a safe addition to the world's group of national industrial and commercial competitors? Is their demonstrated

strength dangerous to the peace of the world and to the white race? To answer these questions, it is indispensable to form a clear and just idea of Japanese desires and ambitions.

The Japanese are not a numerous people; for they number less than one half the population of the United States. They are not a colonizing people. The Japanese Government has had great difficulty in inducing Japanese to settle in Formosa, and at the present moment it has similar difficulties in Korea and Manchuria. To be sure, the climate of Formosa is too hot for the Japanese; but that of Korea and Manchuria resembles that of Japan. They are commercially adventurous, and will travel far and wide as pedlers, or in search of work and trade; but they are not colonists. They are a homing people, like the French. They have no more use for the Philippines than Americans have. If a Japanese trader makes money in a foreign country, he will take his family and his money back to Japan as soon as he can. They do not intermarry with women of any foreign race, affording thus a strong contrast to the white race when in foreign parts. The inexpedient crossing of unlike races will not be promoted by them in any part of the world.

The Japanese are not a warlike people, although within a few years they have waged two defensive wars, one with China and the other with Russia. They possess, indeed, admirable martial qualities, and make obedient, tough, and courageous soldiers in their country's service. Their fundamental motive in fighting, however, is not a natural love of it,

such as is exhibited, or used to be exhibited, by some Occidental peoples, but a simple, profound loyalty to their country, and to the authoritative representatives of their country's power and will. In their intense patriotism pride, loyalty, and love are fused into a sentiment which completely dominates the private soldier, the officer, and the whole military and naval service. Still they are not an aggressive, conquering people; and they feel no motive for acquiring new territory, except near-by territory which they believe to be necessary to the security of their island empire.

The Japanese are accused, chiefly by Occidental army and navy men, of intending to "dominate the Pacific"; but Japan has no such intention. All Japanese statesmen and political philosophers recognize the fact that Japan is, and always will be, unable to "dominate the Pacific." No one nation in the world could possibly control the Pacific Ocean. For that purpose a combination of at least four powers having strong navies would be necessary. Five or six powers combined, such, for example, as Great Britain, Germany, France, the United States, Japan, and Russia or Italy, could do it; and could at the same time dominate all the other oceans and seas. Such a group would possess ports and coaling stations on all the seas and oceans. It would be convenient, though not indispensable, if one strong South American government on the Atlantic Coast and one on the Pacific Coast joined the group. There are many who think a control of the oceans by such a combination would be desirable; because it would tend to remove some of the apprehensions

which cause war and preparation for war, and to check in their early stages offenses committed or contemplated by one nation against another.

All Japanese leaders are fully aware that it would be impossible for either Japan or the United States to send an army of a hundred thousand men with their baggage, animals, stores, and munitions, across the Pacific Ocean in safety, although the fleet should be convoyed by scores of battleships and armored cruisers. The means of attack at night by almost invisible vessels on a wide-extended fleet in motion are quite adequate to arrest or destroy any such expedition, if the attacking force were even tolerably alert and vigorous. If by miracle such an army should effect a landing on either shore, it could achieve nothing significant, unless the first expedition should be immediately followed by a second and a third. The scale of modern warfare between nations is too large for such remote expeditions,—no matter what the resources of the nation that should be rash enough to attempt them.

Japan, being heavily burdened with debts incurred in carrying on her wars with China and Russia and making internal improvements, could not borrow the money necessary in these days for waging aggressive war on a large scale at a distance, although she might fight successfully on the defensive at or near home. That much she could doubtless do, as many other poor nations have done; but her financial condition is such that she will be prevented from engaging in offensive war for at least a generation to come. Moreover, all the capital which Japanese merchants, manufacturers, and

financiers can possibly accumulate during the next thirty years, is urgently needed for the execution of public works and the expansion of industrial undertakings at home. The industrial and commercial interests of Japan require peace with all the other nations of the world. As Count Terauchi said to me at Seoul, "There is no interest of Japan which could possibly be promoted by war with the United States or any other nation; and conversely, there is no interest of the United States which could possibly be promoted by war with Japan." Such, as I have said before, was the opinion of every Japanese statesman and man of business with whom I talked in the summer of 1912; and many of these gentlemen said that they had never met any Japanese political or commercial leader who was not of that opinion. The entire commerce between Japan and the United States is for the mutual advantage of each country, and the United States is Japan's best customer. War between the two countries is not to be thought of; and to suppose that Japan would commit an act of aggression against the United States which would necessarily cause war is wholly unreasonable, fantastic, and foolish,—the product of a morbid and timorous imagination.

Japanese statesmen are not in favor of any extensive migrations of Japanese people to other lands. They want Japanese emigrants from their native islands to settle in neighboring Japanese territories. They hold that the Japanese home industries need all the labor the population can furnish. Japanese economists greatly prefer to the planting of Japanese capital or labor in foreign

lands the recent methods of planting foreign capital in Japan. When an American corporation, which is conducting at home a successful industry, sells its patents and methods to a body of Japanese capitalists, and then takes a considerable portion of the stocks and bonds of the Japanese company, American capital finds a profitable investment, the Japanese laborers remain at home, and the product of Japanese industry is sold to advantage in the markets of the world. Japan wants foreign markets for its manufactured products. War, or any other action or event which interrupts commercial relations with other countries is adverse to Japanese interests.

The right state of mind of Americans towards Japan is one of hearty good will and cordial admiration. Japan should receive every privilege in the United States which the "most favored nation" possesses; and that is all Japan wants from the United States, except the respect due to its achievements, and to the physical, intellectual, and moral qualities which have made these achievements possible. All classes in Japan, the uneducated as well as the educated, the poor as well as the rich, are sensitive about being treated, or thought of, as if they were a backward, semi-civilized, untrustworthy people. They wish to be regarded as a worthy member of the family of civilized nations.

Wars and preparations for war continue, because many of the causes of war in time past continue to exist. The Occidental peoples have for several centuries fought oftener and harder than the Oriental; and the Christianity which prevails among them has

little, if any, tendency to prevent their fighting among themselves, sometimes with ferocity, or to prevent them from attacking non-Christian peoples, if they think it their interest to do so. The Eastern peoples, Far and Near, as has been already mentioned, will have some causes of their own for war; because in some important instances neither their geographical limits nor their governmental institutions are as yet settled. One Eastern people has recently acquired the whole of the Occidental art of war with its subsidiary sciences, and other Eastern peoples are on the way to the same acquisition. War will last until its causes are rooted out, and that extirpation will prove a slow and hard task. The Carnegie Endowment for International Peace is just entering, therefore, on labors which will last for generations. Its reliance must be on the slow-acting forces of education, sanitation, and conservation, on the promotion of mutual acquaintance and advantageous commercial intercourse with the resultant good will among nations, and on the steady, patient use of the civilizing agencies which humane democracy and applied science have invented and set at work within the past hundred years.

From the observations recorded in the above Report, certain inferences may be drawn concerning profitable expenditures for the promotion of international peace by the Division of Intercourse and Education of the Carnegie Endowment for International Peace. It may be safely inferred that action in any of the following directions will bring nearer the coming of peace:—(1) Create or support agencies competent to reduce, relieve, or pre-

vent, so far as is each day possible, the wrongs, miseries, and illusions which have caused, and are still causing, wars. (2) Strengthen public opinion in favor of publicity in governmental and commercial transactions. (3) Suspect and probe all secrecies and hidings in the family, in industries, in legislation, and in administration. Oppressions and robberies are generally concocted in secret. It is one of the worst consequences of long-continued and severe oppression, that the resistance to it and revolution must be nursed in secret. Inquire, bring light, and publish. (4) Cultivate in all nations trusteeship, public spirit, and the application of private money to public uses. (5) Create or foster, in addition to universal elementary education, permanent educational agencies such as libraries, hospitals, dispensaries, training-schools for nurses, and technical and professional schools in countries which lack these instrumentalities. (6) Recognize frankly the present necessity of maintaining in all countries armed forces for protective duty against aggression from without, or disintegration from within. (7) Strengthen international public opinion in favor of an international naval force to secure peace and order on the seas, and a freedom that cannot be interrupted for water-borne commerce. (8) Foster those religious sentiments and those economic, industrial, and political principles which manifestly tend to purify and strengthen family life, and to secure liberty, domestic joys, public tranquillity, and the people's health, morality, and general well-being.

1913

THE MORAL EFFECTS OF WAR

We meet here to-day, in accordance with a patriotic custom now fifty years old, to think about and praise the qualities and deeds of the young men who took part in the Civil War of 1861-65, a war which settled two things,—first, that the Constitution of the United States was a sacred contract which bound all the States of the Union until modified by new agreements between the several States; and secondly, that the ancient industrial system called slavery was not to continue to exist in any part of the Republic. Both these results were of such high value to the United States in direct and permanent advantages, and to the world as lessons or examples, that by common consent they were worth all they cost in blood and treasure. There were some thinkers in those days who ardently desired these results, and believed that they could have been accomplished without war, if the American people and its leaders had only been more rational and more humane. Be this as it may, the Civil War did, as a matter of fact, accomplish these two beneficent results; and history has set them down to the credit of war in general.

In the judgment of historians and, indeed, of the civilized world, there have been righteous wars and also unrighteous. Out of some righteous wars

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have come no gains for humanity; and out of some of the unrighteous indisputable gains. Whether a war in progress will yield a balance of good or of evil to the human race as a whole, no mortal can tell until it is over, until the material wastes and losses have been computed, and its spiritual profit-and-loss account has been approximately made up. The generation which fights a great war through can seldom judge correctly its spiritual results on the national scale, or on the larger scale of the human race; but it can and it does estimate correctly the effects of fighting on the individual soldier or sailor,—on his moral fibre, and on his capacity for self-sacrifice and for deeds of personal courage and coöperative endurance. About these frequent good effects of warfare on the individual soldier or sailor the American generation that fought the Civil War is in no doubt whatever, and never has been.

We are here to-day to remember lovingly and with reverence the characters and deeds of the brave and generous soldiers of our Civil War on both sides. Yes, on both sides. Men who fight strenuously even in a cause which their opponents hold to be unrighteous, and act humanely after either victory or defeat, win the respect of their adversaries, and may easily become, when peace is made, good friends and neighbors. That happened after the Civil War on an immense scale. It is barbarities before or after the fight and behind the battle front that embitter both combatants and non-combatants, and instil lasting national hatreds.

You surviving veterans of the Northern armies know perfectly well that the soldier who goes to

war because he loves his country, or his home, or private liberty, or public justice, is not necessarily brutalized or degraded by fair fighting, even if it be fierce and prolonged. Brave and gentle men may stand up against each other in battle after battle, and kill and wound each other to their utmost, and yet remain gentle and just, as well as brave. The disbanding armies of the Civil War gladly and quietly returned to peaceful life, and the soldiers were, as a rule, better citizens and more serviceable men for times of peace than they were when they went out to fight.

The effect of war on the private soldier depends on the motive which governs him in becoming a soldier. If he is governed by any motive of love, gratitude, or devotion, he is morally safe in taking part in fighting, no matter how fierce it may be, and often comes out of it a stronger and more useful man. If, on the contrary, he is driven to the terrible work of a soldier through fear of his rulers and officers, or as a result of the habit of obedience and submission in which he has been brought up, he may exhibit in fighting self-sacrifice, patience, and resignation, but he cannot hope for any new acquisitions of personal energy and directive force. If the soldier going to war was already a selfish, cruel, and coarse man, fighting will probably make him more and more brutal.

It is in vain for the undiscriminating advocates of peace to deny that war is capable of developing in good and serviceable men more effective goodness and serviceableness. Tens of thousands of young men killed in the Civil War, and hundreds of

thousands of the survivors of that dreadful four years' conflict testify to the truth of this statement; and we are here to-day to think of those young men again, and to bear our testimony to this potential good which may come, and often has come, out of the hideous savagery of war. This is the marvel of marvels—that a fine human soul can extract from the carnage and wreckage of war a finer virtue and greater spiritual power.

While, however, war is capable of developing noble and useful traits in human beings, it is also capable of developing in soldiers and sailors and their commanders traits which it were foul injustice to dumb animals to call brutal. When non-combatants—men, women, and children—are shot, drowned, or killed by exposure and lack of food, when women are violated, when wholesale robbery is committed by victorious troops, when defenseless communities are crushed by fines and requisitions, when, to win immediate military advantage solemn international contracts, entered into in times of peace, are disregarded, when non-combatants are used as a shield for troops advancing to an attack, when the Red Cross and the white flag, those precious symbols of humanity in war, are treacherously used, when commercial vessels are sunk without regard to the safety of passengers and crew, the rulers or officers that plan, order, or permit such actions, and the soldiers or sailors that obey such orders, or commit such crimes without orders, are inevitably demoralized and brutalized. These shocking immoralities produce their worst results, when they are elaborately planned beforehand, and

embodied in manuals for officers concerning justifiable severities in time of war. Even a war waged for a moral object—such as national independence or resistance to an oppressive alien rule—becomes a degrading and abominable thing if it be prosecuted in the spirit and by the methods of highwaymen and pirates. All these atrocious practices are flagrant violations of international morality as formulated and agreed upon in numerous treaties and conventions since the Napoleonic wars, as for example in the Vienna Congress of 1815, the Congress of Paris in 1856, the Red Cross Convention of 1864, the Brussels Conference of 1874, and the two Hague Conventions of 1899 and 1907; but unfortunately there exists no international force authorized and competent to compel the observance of the accepted rules of international law. In the creation of a new international organization capable of putting behind international law the same effective sanctions that support municipal law, lies the only hope that this shocking war may prove to be the last between civilized nations. But this is a real hope. It is the absence of sanction which has made international law though morally admirable, ineffective at the pinch.

Before the historian or the political philosopher can state the moral effect of any particular war on the people that took part in it, he must learn how the war was actually conducted. The bad effects on a people who adopt barbarous and cruel practices in war may be concealed for generations; but they are sure to be revealed at last. The war of the Greek Revolution in the first quarter of the

nineteenth century was one of the most ferocious in history—perhaps inevitably so, since it was a rising against the Turks. In the second Balkan War in the first quarter of the twentieth century this ferocity reappeared in horrible forms, but was exhibited not by and against the Turks, but among Balkan neighbors.

When modern warfare at its worst is compared with ancient at its best, certain moral improvements are plainly seen to have been accomplished in the course of centuries. The wholesale butchery of a conquered people, the carrying into slavery of all the spared,—men, women, and children,—and the appropriating not only of new territory, but of all the goods and chattels of the people to whom that territory belonged, have ceased to be legitimate and usual methods of warfare; but war for conquest and booty has by no means ceased in the world. Forcible annexation of territory and forcible holding of a conquered people to an unnatural allegiance still persist. Before we can decide whether any given war is justifiable or unjustifiable, we must know with what motive it is waged, and for what objects. Even a war waged for an unjust object may not be morally injurious to the common soldier, who does not know the real motives of his rulers or commanders, and whose patriotic feelings may have been skilfully appealed to by his teachers and governors; but an unrighteous war is inevitably degrading to the rulers and statesmen who plan it and bring it about.

While a great war is in progress, the mind and heart of a belligerent nation may be swept by the

passions of the moment into moral disaster and temporary downfall, or be stormed by evil powers and obsessions, so that the nation surrenders itself to hatred, anger, and the desire for vengeance; but the nineteenth century supplied many instances of the extinction of national hatreds, and even of the transformation of enmities into cordial friendships. One must not imagine that all the misjudgments and antipathies which war breeds are likely to last indefinitely. The rapid shiftings of European national alliances for war or peace prove that nations, like individuals, cool down, and suffer their feelings to change with changing circumstances. The effects of victory in war on the mind and heart of a nation may easily be worse than the effects of defeat, particularly if the victory be overwhelming, and accompanied by supposed pecuniary gains. In spite of the essential barbarousness of war, a nation like a man, can be lifted by it out of selfishness, self-indulgence, and frivolity into self-sacrifice, hardy endurance, and solemn consecration. This may be one of the reasons that the white race has made favorable progress in civilization during the past one hundred and fifty years, in spite of the frequent occurrence of war.

Is it possible to discriminate at this day between righteous and unrighteous, justifiable and unjustifiable wars? There are people, some excellent and lovely and some fanatical and disagreeable, who cry out when justifiable war is mentioned, that there is no such thing, that all war is now and forever abominable, ruinous, and accursed. Do the hard facts concerning human progress during the past

two thousand years support this doctrine? Does the state of Europe to-day permit sensible men and women to believe that the men of violence and perverse ambition, who have always existed and still exist, should be free to work their will on submitting contemporaries? At such a thought all the grandeur and courage in human nature revolt. We who believe in liberty for all men, in the public justice which secures to the individual his own pursuit of happiness, unrestricted except by the right of every other man to pursue his happiness too, and in even-handed justice between man and man whether strong or weak, and between states whether large or small, think that we can define justifiable wars, as wars of resistance to alien rule, as wars of independence, as wars for increase of liberty for the masses of the people, and as wars of defense against aggressors. In these days, when many strong nations live by manufacturing more than by agriculture, the term "war of defense" has received an enlarged meaning. Such a nation is always, or frequently, obliged to import a large proportion of its annual food supplies; and the factory industries by which it lives must be free to obtain from without its own territory many of their raw materials, and free also to export their varied products. Deprived of this freedom to import and export, such a nation cannot long thrive; and any war in which it engages to preserve this freedom, when threatened, is properly called a "war of defense."

We have no difficulty in defining unjustifiable wars as wars of conquest or of aggression by one

nation against another, and as wars for material advantage,—such as the extension of national trade, or the seizure of new territory as outlets for surplus population. Aggressive wars in the present century in imitation of some unjust wars in earlier centuries which were apparently profitable to those that waged them, without regard to the development of international ethics in the interval, are clearly unjustifiable. The prolongation of a war by the rulers or commanders of one of the contending parties, when it has been demonstrated that the objects, to attain which that party went to war, are unattainable, or would be futile if attained, is always in the highest degree unjustifiable, because the further expenditure of blood and treasure is wasted.

Again, there is in generous human beings a criterion for justifiable wars which is not exact, and yet is often trustworthy. The humane judgment always inclines to the weaker party, and always feels that the strong have no right to pounce upon the weak,—particularly for a selfish object. Finally, the white race in the twentieth century has made up its mind that no single nation has a right to dominate or rule any other nation by either land or sea-power, and that resistance to such domination by force of arms is not only justifiable, but expedient.

We are commemorating to-day the actors in a war fifty years ago which prevented the disruption of the American Union, and preserved for a long future an experienced free commonwealth strongly rooted in a broad and rich land. We are doing this

in the midst of a European War of unexampled dimensions and unprecedented wastes and horrors, which is going to decide whether despotic military government or constitutional government shall prevail in Europe, and whether the nations of Europe must continue to keep prepared for war on the instant under pain of submission to foreign rule, or may, by combination among themselves, on the analogy of the American Union, secure some degree of that comparative immunity from war and preparations for war which the United States has enjoyed since 1865. If the powers which represent public liberty and peaceful rather than warlike competitive development shall ultimately prevail in this titanic struggle, their victory will be due in part to the influence of the United States as a convincing example of the wise application of the federal principle. Then we may say to the young heroes of our Civil War—your sacrifices brought good not to your fellow countrymen alone, but to the human race. You builded better than you knew. Through your efforts and sufferings, government of the people, for the people, and by the people was preserved over a vast area on the American Continent, and now through like sacrifices on the part of the European nations which most value freedom is to be developed and made secure in Europe.

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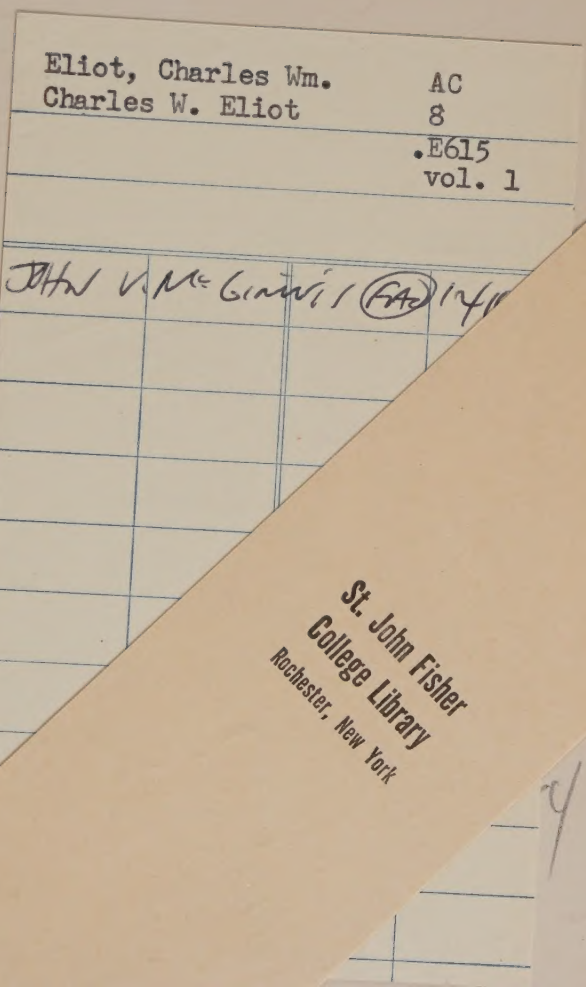

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